JOURNAL FOR THE HOSPITAL STAFF OFFICER — DECEMBER 1961

Resident Physician

Medical Wants and Needs

by E. D. Churchill

Hospital Records as Evidence in Court

We Live Like Millionaires on a Resident's Salary

In a series of 24 handicapped arthritics treated with dexamethasone for 8 to 16 months, ring size decreased consistently—objective evidence of antirheumatic effects which were maintained throughout the entire period of observation. Improvement was also noted in other antirheumatic indices, i. e., pain on motion, tenderness, swelling and morning stiffness.[1]

Supplied: as 0.75 mg. and 0.5 mg. scored, pentagon-shaped tablets in bottles of 100. Also available as Injection DECADRON Phosphate and new Elixir DECADRON. Additional information on DECADRON is available to physicians on request. DECADRON is a trademark of Merck & Co., Inc.

Reference: 1. Bunim, J. J., in Hollander, J. L.: Arthritis and Allied Conditions, ed. 6, Philadelphia, Lea & Febiger, 1960, p. 364.

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Dexamethasone

December 1961, Vol. 7, No. 12

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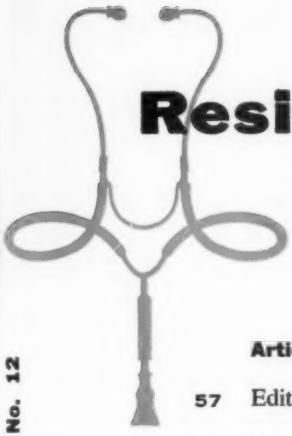

Resident Physician

December 1961, Vol. 7, No. 12

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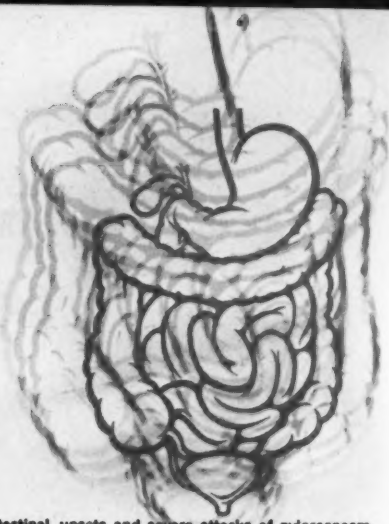
Resident Physician is published monthly on the fifteenth by The Resident, Inc., with publication offices at 34 North Crystal St., East Stroudsburg, Pennsylvania. Executive, advertising and editorial offices at 1447 Northern Blvd., Manhasset, New York

"Murel"

Brand of Valethamate bromide

promptly controls pain and spasm



In the G.I. tract In acute gastrointestinal upsets and severe attacks of pylorospasm, pain and spasm are promptly controlled.[1,2] "Murel" with Phenobarbital has been employed in functional disorders of the gastrointestinal tract with outstanding success.[2]

In the G.U. tract "Murel" rapidly relieves smooth muscle spasm in renal colic, irritable bladder, pyelonephritis, pyelitis, and urethritis.[1-3]

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Remarkably free from drug-induced complications: Visual disturbances, mouth dryness, interference with micturition or bowel evacuation occur in only 4 per cent of cases, compared to as high as 15 per cent with other antispasmodics, especially the anticholinergics.[1]

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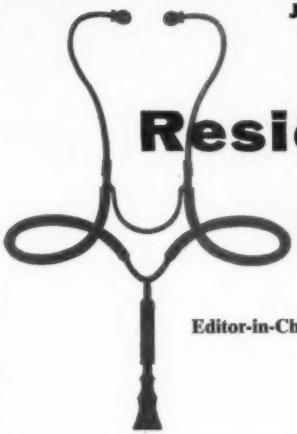
MEDICAL MEMORABILIA: Can you identify the objects and books which are part of the artful composition painted for this month's cover by Stevan Dohanos? The famous Yale Microscope, two monaural stethoscopes, Rene Laennec Medal, anatomy by Vesalius, medical stamps, and a watch which belonged to George Washington's dentist (fob contains capsule with G.W.'s last tooth!) are among the objects shown. For a large print of this painting on heavy, wide margin paper, personally autographed by the artist and ready for framing, send your name, address and 50 cents for handling and mailing costs to: COVER, RESIDENT PHYSICIAN, 1447 Northern Blvd., Manhasset, N. Y.

Journal for the Hospital Staff Officer



Resident Physician

December 1961, Vol. 7, No. 12

Articles are accepted for publication with the understanding that they are contributed solely to this publication, and will directly interest or be of practical value to resident physicians and interns. When possible, two copies of the manuscript should be submitted.

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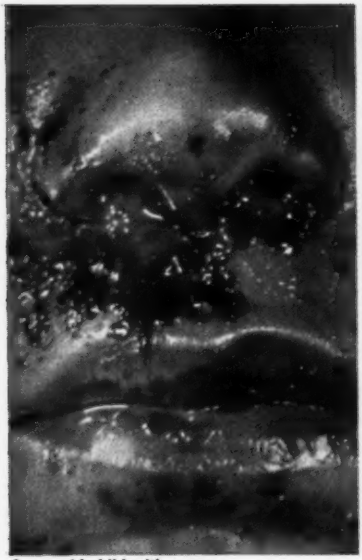
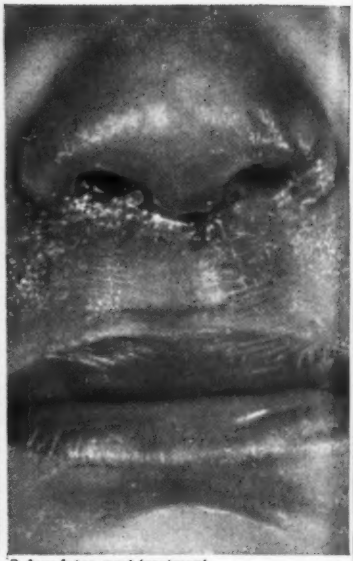


3-year-old child with severe impetigo, pretreatment



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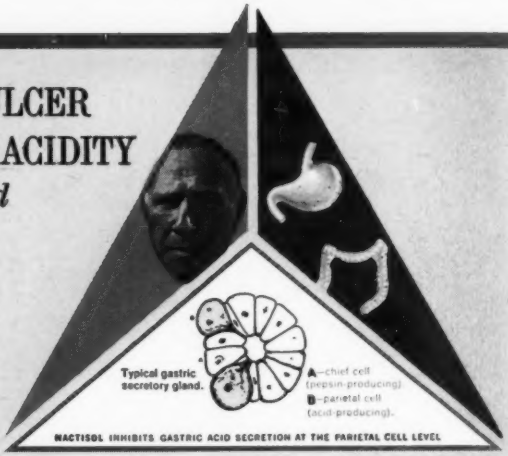
IN PEPTIC ULCER AND HYPERACIDITY *with associated* tension and nervousness



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References

1. Douthwaite, A. H.: The Development of the Treatment of Duodenal Ulcer, Proc. Roy. Soc. Med. *51*:1063-1068 (December) 1958. 2. Batterman, R. C., Grossman, A. J., Leifer, P., and Mouratoff, G. J.: Clinical Re-evaluation of Daytime Sedatives, Postgrad. Med. *26*:502-509 (October) 1959. 3. Steigmann, F.: Clinical Report to McNeil Laboratories. 4. Lorber, S. H.: Clinical Report to McNeil Laboratories, December 6, 1960. 5. Rider, J. A.: Clinical Report to McNeil Laboratories.

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for predictable elimination...

Fleet whatever the schedule

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works within one hour or overnight as a gentle laxative or purgative

PHOSPHO-SODA conveniently fits any schedule because its effect can be controlled by dosage and time of administration. It produces normal, soft bowel movements without g.i. discomfort or irritation. Pleasant to take in cold water, carbonated beverages, or fruit juices. Recognized as a superior eliminant for over 60 years.

100 cc. contains: 48 Gm. sodium biphosphate and 18 Gm. sodium phosphate in bottles containing 2½, 6, and 16 fl.oz.

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plus more built-in potassium protection than any other diuretic-antihypertensive

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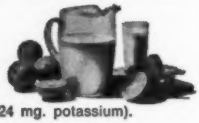

Supplied: ESIDRIX-K 50/1000 Tablets (white, coated), each containing 50 mg. Esidrix and 1000 mg. potassium chloride (equivalent to 524 mg. potassium).

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SINGOSERP® (syrosingopine CIBA)

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when vomiting persists in the recovery room

When vomiting persists unabated in the recovery room, prompt institution of Tigan therapy will bring the emesis under control in a great majority of cases. Tigan is as effective an antiemetic as the most potent phenothiazines, without entailing any of their risks. Tigan may be administered with confidence since it does not cause tachycardia, potentiation of anesthesia, or significant hypotension.

Note: There are no known contraindications or special precautions to complicate Tigan therapy.

Tigan Injectable is supplied in 2-cc ampuls and 20-cc vials; Tigan is also available in 250-mg and 100-mg capsules and 200-mg suppositories.

Consult literature and dosage information, available on request, before prescribing.

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INJECTABLE **Tigan**

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Division of Hoffmann-La Roche Inc.

Read the EKG . . .

Edited by Charles E. Kossmann, M.D.,
Associate Professor of Medicine, New York University School

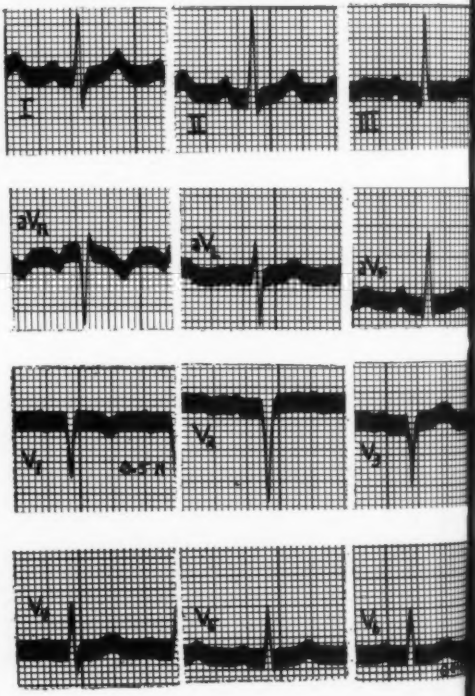
Atrial and ventricular rates 88 per minute
P-R interval = 0.17 sec.
QRS interval = 0.09 sec.

Electrical axis = No deviation from normal

S_1 slurred
Q_3 broad and notched

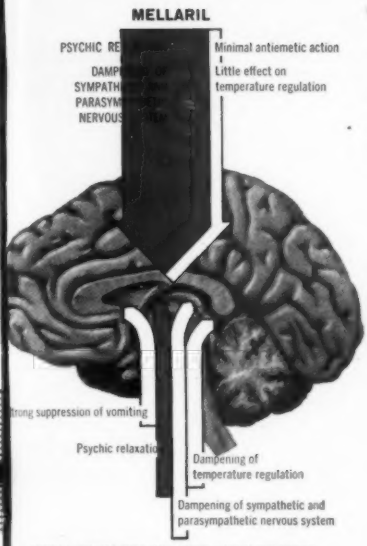
V_1 — Q deep
R diminutive
V_2 — QS deep,
T low
V_3 — R low

EKG INTERPRETATION:
Normal sinus rhythm



What's Your Diagnosis?

(Answer on page 52)



OTHER PHENOTHIAZINE-TYPE TRANQUILIZERS

"The side-effects which we have observed during trials with Mellaril have not been of a serious nature and we believe that the claim can justly be made that Mellaril has fewer side-effects than any other of the phenothiazine compounds."[2]

greater specificity of tranquilizing action results in fewer side effects

1 Mellaril has a specificity of tranquilizing action on certain brain sites, in contrast to the more "diffuse" action of other phenothiazines. For example, unlike other phenothiazine tranquilizers, Mellaril provides tranquilization without any significant antiemetic action.

2 Mellaril has less "spill-over" action to other brain areas. Hence, such extrapyramidal effects as parkinsonism are rare.

3 Jaundice has not been observed.

Mellaril is indicated for agitation, apprehension and anxiety, ranging from mild to severe, in both ambulatory and hospitalized patients.

ADULT DOSAGE—Usual starting dose: Non-psychotic patients—10 or 25 mg. t.i.d.; Psychotic patients—100 mg. t.i.d. Dosage must be individually adjusted until optimal response. Maximum recommended dosage: 800 mg. daily.

CHILDREN'S DOSAGE — Average 10 mg. t.i.d. (range: 20 — 40 mg. per day).

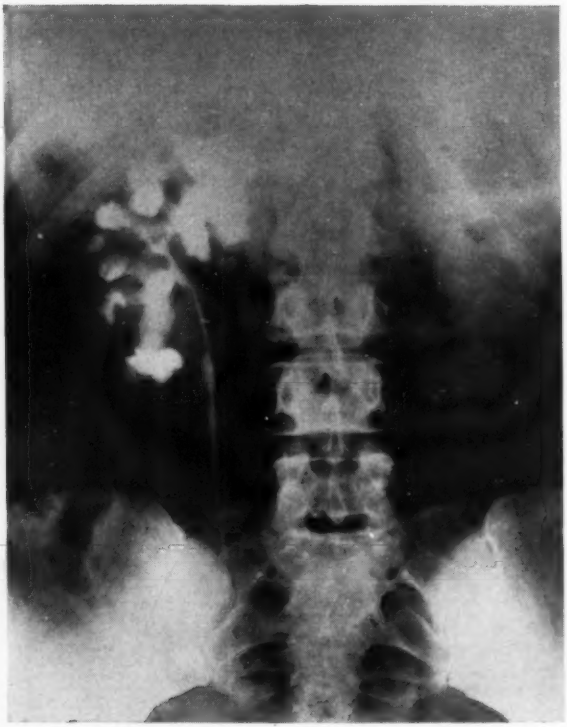
Supply: Mellaril Tablets, 10 mg., 25 mg., 50 mg., 100 mg., 200 mg.

PRECAUTIONS: Leukopenia and/or agranulocytosis, photosensitization and convulsive seizures have been reported with long-range therapy but are very rare. Jaundice has not been observed during the use of Mellaril. Pseudoparkinsonism and other extrapyramidal disorders may occur but are infrequent and mild. Pigmentary retinopathy, which has been observed in psychiatric patients taking large doses (in excess of 1600 mg. daily over long periods of time) is characterized by diminution of visual acuity, brownish coloring of vision, and impairment of night vision; examination of the fundus discloses deposits of pigment. The possibility of this complication is avoided by remaining within the recommended limits of dosage. Drowsiness is not infrequent, especially with large doses and during early treatment. Dryness of the mouth, nasal stuffiness, skin eruption, nocturnal confusion, galactorrhea and amenorrhea are noted occasionally. Some male patients have complained of inability to ejaculate. Female patients appear to have a greater tendency to orthostatic hypotension than male patients. As with other phenothiazines, Mellaril is contraindicated in severely depressed or comatose states from any cause.

1. Freed, S. C.: Thioridazine, a neuroleptic in general practice, International Record of Medicine, 172:644, Oct. 1959. 2. Sandison, R. A., Whitelaw, E., and Currie, J. D. C.: Clinical trials with Mellaril in the treatment of schizophrenia, Journal of Mental Science (British Journal of Psychiatry) 106:732, April 1960.

Viewbox Diagnosis

Edited by Maxwell H. Poppel, M.D., F.A.C.R.,
Professor of Radiology, New York University College of Medicine and Director of Radiology, Bellevue Hospital Center

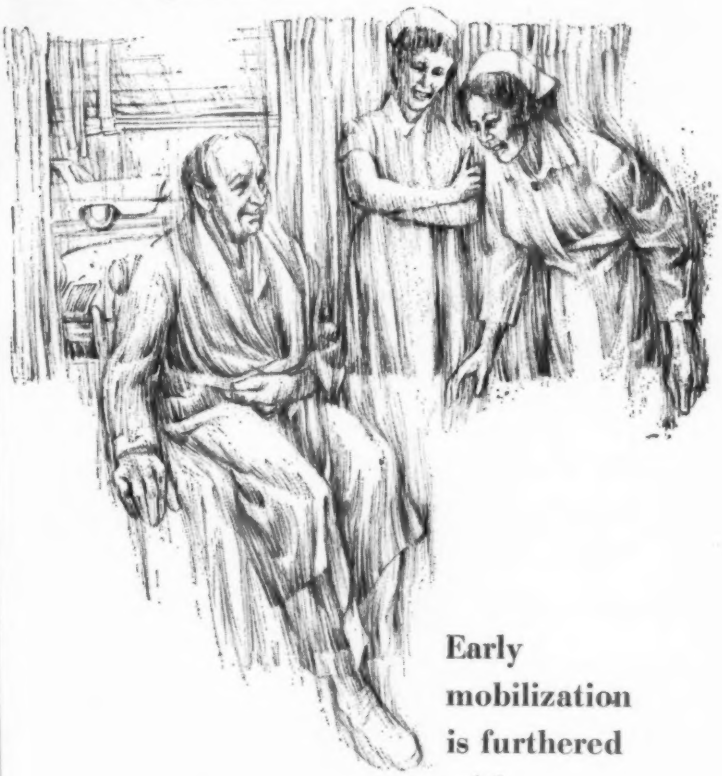


What Is Your Diagnosis?

1. Tumor
2. Tuberculosis
3. Hydronephrosi
4. Perinephritic abscess

(Answer on page 52)

NOW— postoperative analgesia usually means early mobilization, faster recovery and fewer complications.



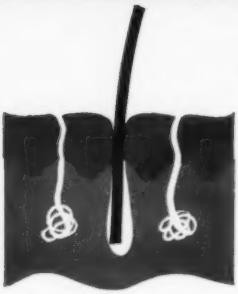
Early mobilization is furthered with

New Alvodine®

Brand of piminodine ethanesulfonate *ethanesulfonate*

postoperative analgesia and alertness

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



DERMATOLOGY

Diagnosis, Please!

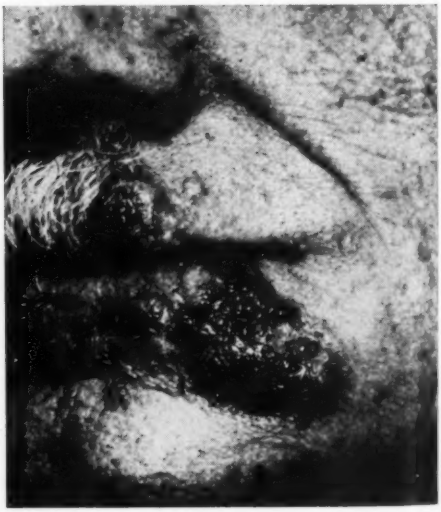
Edited by Alfred Kopf, M. D., Associate Professor, New York University School of Medicine.

This 62-year-old man was under treatment with a liquid medicine for "nervous tension" when he suddenly developed a number of slightly tender, fungating tumefactions some of which are seen here on the upper and lower lips but were also present on his extremities. All the lesions began explosively one week prior to consultation. His general health seemed unaffected. The treponema pallidum immobilization (T.P.I.) test was reported to be negative. Biopsy revealed a "granuloma."

What's Your Diagnosis?

1. Tertiary syphilis
2. North American blastomycosis
3. Malignant lymphoma
4. Bromoderma
5. Squamous cell carcinoma

(Answer on page 52)



Letters to the Editor

Unsigned letters will neither be published nor read. However, at your request, your name will be withheld.

Effort, sacrifice . . .

Bravo to the excellent letter of Mrs. Constance Phelan, and thank you for your courage to publish " . . . the Doctor Doesn't Make Sacrifices?" (RESIDENT PHYSICIAN, October, 1961)

Please turn this letter over to the President, and to whomever requests more sacrifices. Also, give it to the Public Relations Department of our AMA so they can help us more by their effort to make the laity not constantly criticize us without a reason.

If you want, you may add us to the list of hard working people: I work 16 hours a day, 7 days a week, 365 days a year, for an unsatisfactory return. I devote, in addition to my practice, 40 hours to state service. I just cannot make more sacrifices, unless you extend the day to 30 hours. I drive a Volkswagen, not a Cadillac, and my wife still must go to work. Part of my compensation, in fact, is my satisfied patients, the appreciation of many a patient I have helped, and the feeling that our devotion is recognized, at least by my patients. You will understand, then, how it hurts when other people still demand more sacrifices.

Mrs. J—— wants the address of Mrs. Phelan. She once mentioned to me, that if she knew another doctor's wife who had so little time with her husband, she would not be so lonesome.

—Continued on page 42

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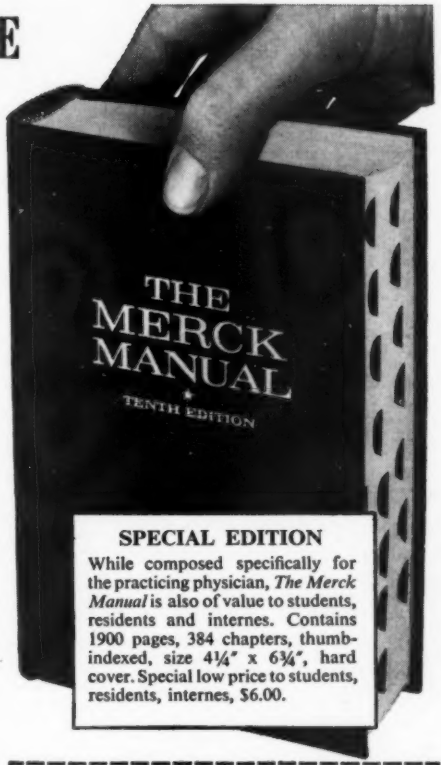

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—*Continued from page 38*

Please withhold my name in case you would like to publish this letter. It's not because of fear of criticism, or because I want an issue to be made of it.

I simply would like to remain a modest rank and file AMA member doctor, who continues to devote all his time and effort to satisfy his patients, and also continue to sacrifice.

B. H. J., M.D.

It was a nice letter, that of Mrs. Constance Phelan ["The Doctor Doesn't Make Sacrifices?" RESIDENT PHYSICIAN, October, 1961] a letter which touches a smarting problem of our profession and which goes beyond the medical profession to involve other sacrificing professions all over the world. How out of place was, though, the second part of the sentence:

"Well, Sir, they should visit our hospitals staffed by young men . . . *from American Medical Schools.*" It just does not belong there.

Mr. Phelan's father died still young when he was at the best of his career. I have seen young medical students, in other countries, go to sanatorium, some of whom perhaps never reached graduation. It is not the case to say who suffers most. Or, would you propose an ECFMG of self-sacrifice? Perhaps my letter written in bad English deserves some correction. Did you ever think, Dr. Long, not to let that sentence go uncorrected? R. P., M.D.
WORCESTER, MASSACHUSETTS

Philippine Association

Thank you very much for your write-up of the First Annual Convention of the Philippine Medical Association in America. I wish there were more Americans like you who can see the side of foreign doctors in this country.

Sometimes, I wonder if it is not true that in the history of the medical profession, the treatment of doctors has never been so shabby as it is today in America. We are fully aware of the noble intention of organized medicine to protect foreign doctors from exploitation, etc., but the end will never justify the means that are being employed now. It is very disconcerting to know that instead of correcting the primary focus of this corruption, which is in the hospitals and their training programs, foreign doctors are being castigated, blamed, and humiliated.

There are silent protests among thousands of foreign doctors that

—*Continued on page 48*

No. 4 of a series reporting on Endo Laboratories' Anticoagulant Survey

Nationwide Survey Explores Current Use of Anticoagulants in Venous Thrombosis and Arterial Embolism

Immediate institution of anticoagulant therapy is now accepted by most physicians for the control of thrombotic disease affecting the veins. By inhibiting further propagation of an already formed thrombus, anticoagulation helps to reduce disability and prevent new and potentially fatal thromboembolic episodes.

These concepts of treatment are supported by the responses of 10,016 physicians who contributed their experience to Endo Laboratories' *Anticoagulant Survey* completed earlier this year. Analysis of the data showed that the use of anticoagulation was more often therapeutic than prophylactic.

Indication	All Anticoagulants	
	Therapeutically	Prophylactically
Acute Thrombophlebitis	[illegible]	19.5%
Recurrent Chronic Thrombophlebitis	[illegible]	30.4%
Deep Venous Thrombosis	[illegible]	21.2%
Phlebothrombosis	[illegible]	20.0%
Arterial Embolism	[illegible]	22.5%
Pulmonary Embolism	[illegible]	38.1%

Figures refer to percentage of physicians prescribing oral anticoagulants

Specialists Lead in Therapeutic Application of Anticoagulants

The chart below indicates the use of Coumadin—the most widely prescribed oral anticoagulant among both general practitioners and specialists—in the foregoing conditions. Proportionately, anticoagulation with this agent was employed to a greater extent by internists and cardiologists than by the responding general practitioners. For example, 76.9% of 2,626 specialists prescribing Coumadin most often used the drug therapeutically in *deep venous thrombosis* with its associated danger of pulmonary embolism, compared to 56.2% of 3,092 general practitioners using Coumadin.

Indication	General Practitioners	Specialists
Acute Thrombophlebitis	[illegible]	62.5%
Recurrent Chronic Thrombophlebitis	[illegible]	67.9%
Deep Venous Thrombosis	[illegible]	76.9%
Phlebothrombosis	[illegible]	59.6%
Arterial Embolism	[illegible]	78.9%
Pulmonary Embolism	[illegible]	84.2%

Figures refer to percentage of physicians prescribing Coumadin® therapeutically

Although anticoagulants were used less often for prophylaxis than for therapy, it is noteworthy that in *recurrent chronic thrombophlebitis*, for example, as high as 38.2% of the reporting specialists and 26.5% of the general practitioners employed Coumadin prophylactically.

Anticoagulants Minimize Mortality Due to Pulmonary Embolism

Through the use of anticoagulants in venous thrombosis, mortality from subsequent pulmonary emboli "can be reduced from 18 per cent to less than 1 per cent."[1] Anticoagulation is an established measure of choice in the management of thrombophlebitis.[1-3] Mead and Wright[1] suggest that ligation be reserved for those cases in which anticoagulation fails to stop the thrombophlebitic process, since the late effects of ligation are often undesirable.

Selection of Coumadin as the oral anticoagulant of choice offers the advantages of rapid, consistent effect and "predictability of dosage."[3] For routine postoperative protection against pulmonary embolism, Coumadin "appears to be the most predictable and consequently the safest and most effective anticoagulant drug..."[4] Since Coumadin, the first clinically established warfarin sodium, is presented in parenteral dosage forms for I.V. or I.M. administration as well as in a broad range of tablet potencies, it is the most versatile anticoagulant in hospital and office practice.

1. Mead, A. W., and Wright, I. S.: M. Clin. North America 45:907, 1961. 2. Olwin, J. H., and Koppel, J. L.: S. Clin. North America 39:193, 1959. 3. Kirtland, H. B., Jr., et al.: California Med. 92:439, 1960. 4. Belding, H. H.: West. J. Surg. 68:94, 1960.

—*Continued from page 42*

organized medicine in America will never hear. They will continue to be silent and time will soon bury them cold. Among our souvenirs of America, we will cherish this one with happy thoughts of men like you who understand.

PATRICIO Y. TAN, M.D.
PHILIPPINE MEDICAL
ASSOCIATION IN AMERICA, INC.
NEW YORK, NEW YORK

• *Thank you. We try to report accurately what we hear and see going on at meetings of medical societies.*

Cuban MDs

The ECFMG Examination was made a necessity for the A.M.A. because of the varied problems with foreign physicians who came to this country before us (Cuban physicians in exile). Of course, we came because we wanted to live in a democracy and we wanted to fight against Communism, and so, our first obstacle in this country arose in the form of the ECFMG Examination and its type of examination.

As you know we have been fighting for seven years against a dictatorship which has been very bitter and where there has been much bloodshed. After him came another one who is worse; he has betrayed his own people and turned over to the Communists. So, we came to this country in search for something which we have searched for so long: liberty.

We changed our way of life in terms of meals, climate, time and language. We left behind all that which we had built in the course of a lifetime, knowing that as soon as we left it, it would all be lost. We came with our family, wife and children, who could not be left behind to fall in the hands of Communists. We also left behind friendships which have lasted almost our entire lifetime; house, car, money, commodities and family. And then . . . the ECFMG and its rare questions such as: "Pick one of a), b), c), d), all of the above, and e) none of the above."!! Of course, this Examination is in English and even though you know you are a specialist in heart diseases or in orthopedics and so on, you have to be prepared in English, chemistry, physiology, etc. Indeed it is very, very difficult.

The best way to solve these problems is: First, put these physicians in hospitals where there is a shortage of interns; then have them take English classes every day until they can read, write and

—*Concluded on page 52*

my doctor recommends Massengill Powder!

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—*Concluded from page 48*
speak in such a way that they can work alone as interns or residents. After that and not before, they should take a refresher course of 10 months in the subjects required by the Examination, in order to prepare for the ECFMG.

Then should come the State Boards for those who want to settle down. The regulations of the State Boards should be made available—the particular regulations required by each State. (And it is not always possible to get the papers required by each State.)

ALBERTO MATA, M.D.
NEW YORK, NEW YORK

I have read with great interest your editorial in the May 1961 issue of RESIDENT PHYSICIAN and feel that it is the most pertinent presentation on the subject that I have seen. Not only have you delineated the problems but you have indicated how many of them might be solved. I am sure that constructive criticism of this type is long overdue and will help to focus our attention on what still remains to be done and how it might be carried out. . .

HENRY K. SILVER, M.D.
Professor of Pediatrics
UNIVERSITY OF COLORADO
MEDICAL CENTER, DENVER

EKG DIAGNOSIS

(Answer from page 22)

COARCTATION OF THE AORTA IN A 13-YEAR-OLD GIRL

The right precordial leads show a small R wave or deep QS as a result of some left ventricular hypertrophy, and illustrate that these abnormalities of QRS do not necessarily mean myocardial infarction.

X-RAY DIAGNOSIS

(Answer from page 26)

TUBERCULOSIS

Note the extensive papillitis as evidenced by destruction of the rims of the minor calices, associated with dilation or narrowing of the infundibula. The preliminary film showed a few scattered calcifications in the region of the papillae.

DERMATOLOGICAL DIAGNOSIS

(Answer from page 34)

BROMODERMA

The medicine he received was found to contain bromides. The negative T.P.I. test almost rules out tertiary syphilis. The rapid onset in multiple sites is against the diagnosis of squamous cell carcinoma. Malignant lymphoma is ruled out by the histologic findings. The possibility of a deep fungus infection was considered in the original differential diagnosis but excluded by appropriate mycologic investigations (Hotchkiss - McManus Stain, culture on Sabouraud's agar).

WHAT'S THE DOCTOR'S NAME?

(Answer from page 178)

LOUIS-FERDINAND CELINE

Perrin H. Long, M.D.

Editor's Page

Our Image with the Laity

In the November issue of RESIDENT PHYSICIAN we published the second and concluding part of what is really a sad and even disagreeable commentary on the break-up of a partnership in the practice of medicine. The cause of the break-up, as those who read it know, fundamentally revolved around *money,* i.e., who was making it and who was going to get it.

As we have watched the medical scene develop since World War II, we have become increasingly concerned with two factors, both of which are detrimental to our profession. The first has to do with the increasing pressures from within and from without our profession to regard it as a "business," and secondly, as a result of these pressures, the laity is developing a different image of the doctor as an exponent of the healing art. It is the image of the doctor as a run-of-the-mine businessman and medicine as a somewhat questionable business carried on by hucksters in the market place.

There are probably several reasons for this. First of all there are many, many more people who can purchase medical service than there were twenty years ago. This has tended to put medicine as a profession in a seller's market, when certainly in the decade before World War II, medi-

cine was experiencing a buyer's market. Then with the scientific advances which have been made in our professional field, came many more examinations, tests, etc., all costing money (and in many instances making money for the doctor). As is well known, most of such tests are only of negative value as far as being beneficial in the diagnosis and/or treatment of the illness of the patient. There is good evidence—as presented in the partnership article—that many times these tests are regarded as extra sources of income for the doctor or for the firm. When this type of thinking exists, needless examinations and tests will be done. A third factor is what we will call playing "ring-around-the-rosy," a game in which quite needless referrals are made within a specific group of practitioners (and sometimes for a split-fee). Fourthly, with larger gross incomes resulting from increased medical purchasing power of the laity, there seems to be either more actual dishonesty, or certainly more attention is paid to the question of income-tax evasion. It's really sad to hear a doctor testify that he made the twenty-thousand dollars in bills found in his wall safe by selling medical books as a student in a medium-sized medical school. This is especially distressing when the bills were the current-sized ones and his book-selling activities were in the nineteen-twenties. (Yes, he was convicted.) Income tax evasion is cheating and patients who think are bound to be suspicious of a cheat. He may cheat them when they are ill. Then there is the theory of "all the traffic will bear." This is well understood by patients and certainly not appreciated by them. There is a segment of patients who would like to purchase their medical care in a discount house, but our experience over many years with all types of patients would lead us to believe that most patients and their families are "fair price" advocates, at least as far as professional fees are concerned.

Fifthly, the House of Delegates of the American Medical Association by its actions over the years has made a considerable segment of the laity think that the A.M.A. governing body is more interested in the economics of medicine than in the science or art of the profession. One only has to review the proceedings of the House over the years to understand this. Finally, we believe that no one will begrudge a doctor making a good living or even getting rich if he has very special and desirable skills. But it would be better all around for us not to give the impression of being interested in the fee rather than the sick person.

Physicians in this day and age talk too much about money and are becoming far too ostentatious. Often when we visit hospitals, we look over their parking lots and walk away discouraged with the number of Cadillacs, Lincoln Continentals, Jaguars, and other high priced cars which we have seen. Doctors don't have to keep up with the stock market speculator, the clothing manufacturer, or the electronics promoters. Ostentation of the type I have described means a complete forgetting of the meaning of the Hippocratic Oath. You may think this outmoded, but remember "old linen wash whitest!"

We doctors are entitled to a good living by virtue of time in training, but let's not be ostentatious; let's be honest in our financial dealings with our patients and others; let's not try to keep up with the Joneses (whoever they may be) and by all means let's do our best to maintain the dignity and stature of our profession. And remember that "Though God can only *make* a tree, money can move them where they will be." (M. Fishback) but some things are —"a blessing that money cannot buy" (I. Walton). Your professional *reputation* should not be purchasable for money!

Perrin H. Long.

WE LIVE LIKE MILLIONAIRES

D. W. Foerster, M. D.

The association of substandard living with residency training is widely accepted. And I'd be the first to agree that too often the thought becomes reality for young physicians who are specializing. So when my wife and I were married four years ago, we more or less assumed that our plight would be a somewhat grim battle for survival. At least until we had put my internship year and five years of residency behind us.

But it hasn't worked out that way at all.

Today, my wife, Montine, and I live in a lovely suburban home, have two wonderful sons, own two Jaguars, have two full-time girls to help with the housework and babysitting. During my residency, Montine completed four years of college, graduating with a BA in mathematics.

Also listed among our assets (although we sometimes think of them as liabilities) are "Shaggy Dog," an off-breed sheep dog which I "rescued" from the surgery research lab, and a crooked-tailed Siamese cat named "Piewacket."

And we have borrowed no money, incurred no debts.

Now before you get the idea I am boasting of this accomplishment—not that we aren't proud of what we've been able to do—let me report this note: the main reason I thought it would be good to write this for RP for you to read was because I believe that many of you can borrow some of the methods and the attitude which we feel made this possible.

Mix some ingenuity with an eye for quality in secondhand goods, the ability to bargain, and some how-to-do-it skill. The result is a recipe for making a good deal out of a rough situation.

... ON A RESIDENT'S SALARY!

As with most of our house staff friends, we did have something to start out with in the way of assets. My father's graduation gift to us was a brand new Chevrolet. Montine had a "personal fortune"—amounting to the not inconsiderable sum of $3000—given to her by her parents, and accumulated from savings bonds purchased during her childhood.

Even though we knew we were more fortunate than many couples in having these things, we also knew that these assets would not go very far in providing life's necessities (much less luxuries) over the ensuing six years of postgraduate study.

We had agreed that if at all possible my wife should attend college right through to graduation. Here's where we got an assist which made our plans realistic. My father-in-law, to permit my wife to attend college on a full-time basis, paid full tuition and offered to provide her with $100 a month assistance for books, transportation and other expenses of college attendance. Now we were fairly sure that with careful planning we could make a go of it.

My hospital stipend has since increased to the present $225 a month. For the past 18 months, I have received $60 a month from the U.S. Army Reserve hospital unit to which I belong. This was for participation in evening drills once a week. In addition, the two weeks' reserve duty at summer camp brought an additional $250.

Home purchase

One of the first things we decided was to buy a home, using the $3000 for a down payment. After a few months of looking and bidding, we finally got just what we wanted: a nearly new, six room house in a very desirable section of the city. We bought the house during the depths of the so-called recession of three years ago—and we feel it was worth a good bit more than what we had to pay for it.

Today, our home would sell for about $18,000—thus giving us a present equity of nearly $8000, a nice return on a $3000 investment plus a home for three years.

The $100 a month payments actually give us a far nicer home than we could rent for the same amount. Also, we get a big deduction on our income tax (mortgage interest and property taxes total $65 of the $100).

Furnishing

Furnishing the house was not as difficult or as costly as we had anticipated. For example, we bought a living room couch in very good condition for $20 at an auction, converted the living room drapes to cafe curtains, and used the extra material to cover the couch (labor $10). So, for $30 we had an unusually nice couch which fit the room perfectly.

Many other pieces were secured in a somewhat similar manner—buying old, but basically good pieces of furniture at cut-rate prices and then repairing, refinishing, or repainting them ourselves. A few things were

ABOUT THE AUTHOR A native Oklahoman, the author received his B.A. from Yale and his M.D. from the University of Oklahoma. A recent winner in the RESIDENT PHYSICIAN Mediquiz contest, he is in his third year of general surgery residency at University Hospital, Oklahoma City. Following this he will train in plastic surgery at Barnes Hospital, St. Louis.

hand-me-downs from relatives, and we bought a few things new by taking advantage of furniture sales.

We acquired a practically new Bendix washer and a separate gas dryer for $75 each. These had been repossessed by a store that was closing out its line of appliances—and was glad to sell them to us even at such a low price. (We raised the $150 by selling our hi-fi which had been a wedding present.)

Much of the credit of our economy shopping belongs to my wife, a fantastic bargain-finder and super negotiator.

Babysitter

After the birth of our first son, Scott, shortly after we moved into our home, it became apparent that babysitting was to be a major problem if Montine was to continue with her education. Fortunately, both grandmothers lived in the same city and volunteered to take turns. However, after the arrival of Steve, one year later, it became an unfair burden to ask them to care for both children. Things looked pretty bleak at this point as we couldn't afford to hire anyone for babysitting purposes.

We resolved this problem by contacting various local welfare agencies and private physicians concerning the possibility of getting unwed mothers to live with us during their pregnancy. As it turned out this was a greater assist than we had anticipated. Not only did we help the girls by providing a private home until their baby came, but also they were available for babysitting at any time.

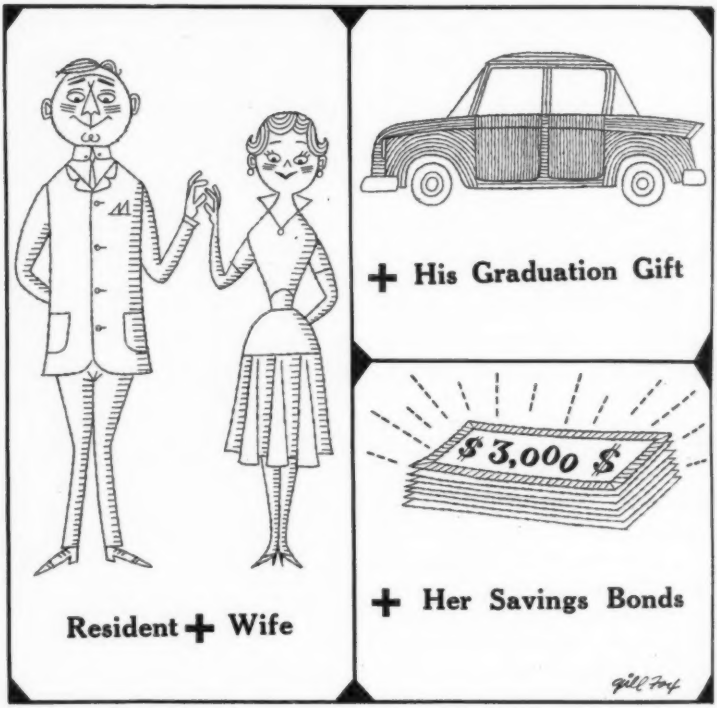
MONTHLY EXPENSES

Although we do not keep a budget *per se*, nevertheless, here is a breakdown of our monthly expenditures:

House payment, taxes, insurance	$102
Utilities	30
Food	105
Auto: gas, oil, maintenance	45
Clothing	40
Drugs and sundries	10
Entertainment	20
Miscellaneous (including spending money)	23
Savings	10
	$385

Auto licenses and insurance ($170) and life insurance ($50 for $13,000 term policy) are paid from summer camp money.

RESIDENT ELEMENTARY

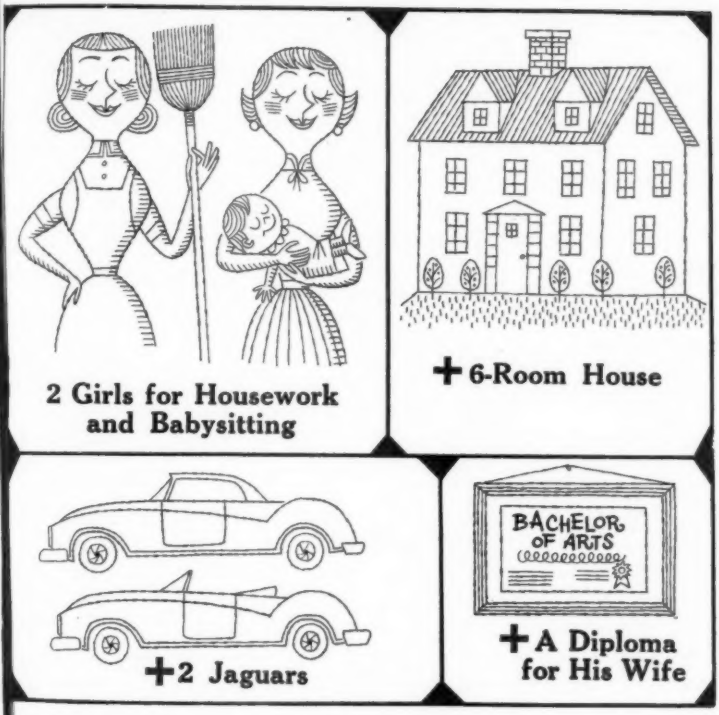


Furthermore, they have been a tremendous help to my wife helping with the housework, cooking, laundry, etc. in return for their room and board. Thus, in essence, we were out only the extra expense of food while having full-time household helpers and babysitters.

Since the first girl arrived we have had one or two girls living with us at all times. When one would deliver, there always seemed to be another girl desirous of living in a private home during her pregnancy.

Because of these girls my wife has enjoyed a considerable degree

ECONOMICS PRIMER



of freedom from the everyday drudgery of housekeeping, permitting her to attend classes and still have time for volunteer charity work. Even this latter activity has been helpful in solving our financial problems. One of her volunteer jobs was helping out at a secondhand clothing store. The clothes, donated by the club members, were sold at reduced prices in order to raise funds for other charity activities. Using her sharp eye for bargains, my wife has been able to buy clothes, and exceptionally nice clothes at that, for all of us, including the girls, at drastically low prices.

Cars

The acquisition of the Jaguars was the fulfillment of a lifelong desire. I had managed to save $1,200 during my first year of residency, having been affiliated with a hospital which paid $100 more per month than the University center. Since this $100 was unanticipated in our budget we simply put it away in savings. After driving the Chevy for 2½ years I sold it for $1500. At this time I had my eye on a Jaguar sedan which, although used, was in excellent condition. I was able to buy this for $1100, leaving me $400 over what I had sold my Chevy for.

A few weeks later I found a used Jag roadster, also in excellent condition; my bid of $1100 was once again successful. So, for $2200 we had two unusually fine automobiles, and we still had $500 in savings.

Knowing very little about automobile maintenance and repair and realizing that this can be a big problem in used cars, I bought the Jaguar factory service manual as well as a text on automobile theory and repair. In a few weeks I was able to tune and service the cars as well as troubleshoot occasional difficulties that have arisen from time to time, thus saving myself considerable money in the process.

Small price

In order to live in such a manner on a total of $385 per month it is obvious that we have very little money left for entertainment and for spending money.

Also, from time to time, the bank balance is mighty low and we have to tighten our belts occasionally at the end of the month.

Even so we feel this is a small price to pay for the overall standard of living which we enjoy. Now that my wife is through college she will soon be teaching school at about $300 a month. And we may find ourselves so "rich" that we'll have to start playing the stock market or buy real estate in order to utilize our "excess" funds!

NEWS ROUNDS

New Law Benefits Exchange Visitor MDs

- Cuts Income Tax Rates
- Kills Social Security Payments
- Eases Dependents' Visa Requirements

Washington, D. C. Effective January 1, 1962, Exchange Visitors: 1) will not have to pay any withholding tax for social security (F.I.C.A.), 2) will pay a lower rate on income and, 3) dependents will no longer be required to seek renewal of visas every six months. Signed by the President, a new law exempts Exchange Visitors from all future payments of social security tax, even though the hospital normally withholds for its employees. Also, the new law reduces Federal income tax rates from the present flat rate of 30% to the progressive rate (starts at 20% for the first $2,000) presently applied to wages of U.S. citizens. Dependents may now remain in the U.S. under the same visa provisions as are applied to their Exchange Visitor spouses. A final provision broadens the present tax exemption of scholarship and fellowship grants (a maximum of $300 a month for 36 months) to also exclude income from grants from foreign governments and certain international organizations. Savings to Exchange Visitor MDs and to hospitals (social security contributions) are expected to total nearly $1 million next year. The law was the direct result of appeals from affected residents, the Philippine Medical Association, Resident Physician and others for the past three years.

— Full report will be in your journal next month —

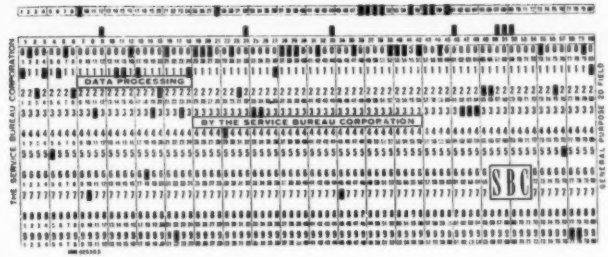
Electronic Computers In Clinical Research

John A. Galloway, M.D.

Case report of a modern method . . .

Many of the advances in the field of medicine have resulted from adapting some technique or method from another field to a specific medical problem. Electronic engineers have been particularly generous to the medical researcher in this regard. Significant contributions have already been made through the use of electronic computers and data processing equipment. And it was the speed and accuracy of such equipment in digesting great quantities of biomedical information and combining them in virtually any combination which made this equipment a basic factor in our own study.

About two years ago, we be-



PRE-OP DIABETIC HISTORY AND TREATMENT:

7. Etiology: Idiopathic ✓ (0) Carcinoma of pancreas ___ (1) Pancreatitis ___ (2) Other ___ (3).

8. Was patient ever in diabetic coma? Yes ___ (0) No ___ (1) Not Known ✓ (2).

9. Length of time diabetes known to patient: Discovered in pre-op period ✓ (12)
Discovered in post-op period ___ (11) 3 mo. ___ (0) 6mo. ___ (1) 1 yr. ___ (2) 2 yr. ___ (3) 3yr. ___ (4)
4 yr. ___ (5) 5 yr. ___ (6) 6 yr. ___ (7) 7 yr. ___ (8) None of these ___ (9).

10. Length of time diabetes known to patient (continued): 8yr. ___ (12) 9 yr. ___ (11) 10 yr. ___ (0)
12 yr. ___ (1) 15 yr. ___ (2) 16-20 yr. ___ (3) 21-25 yr. ___ (4) 26-30 yr. ___ (5) Over 30 ___ (6) None ✓ (7).

Above is shown a portion of one of the questionnaires and the punch card made from it. Study of the vertical "columns" at 7, 8, 9 and 10 (bottom of card) shows that the "digits" checked for each of the questions have been punched out. Columns 75-80 refer to patients' hospital number.

came interested in the question of how diabetics got along in surgery. In reviewing the literature we found the situation to be somewhat as Mark Twain had described the weather — everybody talked about it but nobody did anything about it. To do something about the diabetic situation — that is, conduct a detailed review of a large number of patients—was practically impossible by conventional means. We were particularly awed by the enormity of the task of recording blood glucose levels during the postoperative period under the various methods of insulin administration and in the presence of other variables. At this point, we decided to try business computers as a way out.

The first step following the decision to use business computers

DOCTOR'S

Electronic computers won't replace the doctor but they can replace a good deal of the doctor's paper work, especially if he is doing biological and medical research. Better still, computers can make available the huge amount of information presently buried in medical literature, and in doctors' and hospital records. This was the upshot of a week-long conference, conducted recently by the International Business Machines Corporation, on the use of computers in biomedical research. More than 60 scientists from such respected institutes as the Mayo Clinic, Johns Hopkins, National Institutes of Health, etc., told how they planned to use or were presently using computers.

- *Hidden heart disease cases could be detected among vast numbers of adults and children by computer analysis of phonocardiographs and electrocardiographs. Such a feat would be impossible without computers because of the time involved and the availability of physicians.*
- *Electronic computers helped to analyze mountains of data on inherited traits and characteristics from 7000 families.*

was to obtain a grant to pay for the services of International Business Machine and Remington Rand. Here the Eli Lilly Company came to our aid.

The second step was to set up the project in such a way that information could be extracted from the in-patient charts and easily applied to punch cards. This was done by preparing a questionnaire covering the points we wished to include in the study. Undoubtedly, this was the most difficult part of the project, for it was necessary to crystallize at the very outset exactly what we were seeking and, to a certain extent, try to anticipate some of the findings that would result.

In order to conform to the punch cards, the questionnaire could contain no more than 80 questions ("columns" in IBM parlance), each question could have no more than 12 possibilities ("digits") for answer, and there could be only one digit punched for each column, *i.e.*, only one answer per question.

G HELPER

• *Computer analysis of brain waves could be used to detect mental illness, provide invaluable data on the structure and operation of the brain.*

According to one report at the conference, the Russians are training a new generation of medical students in the mysteries of electronic computers. Our own N.I.H. plans to channel up to $12 million in the next six years to support five or six regional centers utilizing data processing machines.

As Dr. Frederick J. Moore—a member of President Kennedy's Science Advisory Committee and summary speaker at the conference—predicts, "University and medical administrators, industry, supporting agencies and investigators themselves must be prepared for an explosive growth in biomedical computing."

Who knows, tomorrow's resident may well be putting all histories, physicals, tests, therapy and other patient records on punched cards. Not only differential diagnoses, but perhaps patient management, too, might be aided by the new computers —by specialty, of course.

In questions covering a wide range of possibilities, one digit was reserved for an "other" possible answer so as to cover those areas not programmed or categorized in the remaining digits of the question. A "side-sheet" was used to pick up this miscellaneous information.

The questions we designed in our study dealt with the history, physical examination, preoperative laboratory data, anesthesia, method of management, operation, complications and postoperative blood glucose levels. The last six columns (questions) on the cards were used to code the hospital number of the patients. "Transportation" from the cards back to the charts was thus available in cases where questionable or interesting results required further study. Figure I shows one of the cards from the series.

After review of fifty charts, the first questionnaire prepared had to be abandoned because it proved unsatisfactory. The lessons learned from it, nonetheless, led

to the preparation of a second questionnaire which served us well throughout the remainder of the study. At the completion of the study we were able to modify without too much difficulty a few of the questions which were of little use or gave little information. We were then able to bring into the machine analysis the information that had accumulated on the side sheet.

Accordingly, a question which dealt with the use of muscle relaxants during surgery was dropped and twelve different types of operation were brought from the side sheet to the cards. This step only involved changing a number in the margin of the questionnaire.

Since we had quickly filled out questionnaires for each operation, we established the capability of studying either 487 *patients* or 667 *operations*. (The latter number exceeded the former because of the frequency of multiple operations among individual diabetics.) We coded approximately 435,000 positive and negative findings.

The questionnaires were then turned over to International Business Machines whose key-punch operators punched the cards from the questionnaires we had prepared. This step required about four days; cost about $100.

Next we ordered a series of tabulations and totals. We derived a wealth of useful information from a direct addition of each digit of each column; for instance, the total of the (12) digit in column 9 immediately told us that 100 of our patients were discovered to be diabetic in the preoperative period, a finding of considerable importance. These totals also showed that by oversight a few of the questionnaires contained omissions and before proceeding further with the study these omissions could be corrected.

ABOUT THE AUTHOR

Dr. Galloway graduated from the University of Nebraska School of Medicine (1956), interned at Nebraska Methodist Hospital, Omaha, and completed a three-year residency in Internal Medicine at Temple University Hospital where he was an instructor in the Department of Medicine and Department of Metabolism and Endocrinology. He is now in private practice in York, Pennsylvania, and on the part-time staff at Temple.

COL	44		0-1	0-3	0	1	2	3	4	5	6	7
3	3	FIRST D-Y		2			2	3		2		1
3	3	SECOND D-Y		3		1		2	1	2	1	
3	3	THIRD D-Y		1			3	4		1	1	
3	3	FOURTH D-Y		3		2	1	3	1			
3	3	FIFTH D-Y		4		1	3	1		1		
3	3	SIXTH D-Y		3		1	1	3	1	1		
3	3	SEVEN D-Y		2		1		6	1			
3	3	EIGHT D-Y		3			3	2	1			
3	3	NINTH D-Y		3			1	2				
3	3	TENTH D-Y		2			2	1				

Reproduced above is a computation from UNIVAC as it was presented from the computer. The vertical column headed with the numeral "3" on the far left denotes the specific method of management of the patient during surgery—in this case, NPH insulin only was used. The column of "3's" under "44" stands for cholecystectomy. Numbers across the top of the page from left to right denote increasing blood glucose levels. "0-3" means no specimen was taken. "0" means insulin reaction occurred. "1" through "7" indicate blood glucose levels from 70 to 330 mg. per 100 cc.

We then proceeded to the various tabulating, sorting, and computations. Sorting to a certain extent was done by one of us on the IBM sorter in the Medical Records Room of the Temple University Hospital. Tabulations were done on an IBM tabulator which could cross-tabulate all digits of three columns, a maneuver which yielded information in fantastic quantities.

Finally, we turned to UNIVAC computer of Remington Rand for the details of the postoperative blood glucose levels and the presence of a number of variables. Figure II illustrates how this information was presented to us by UNIVAC.

Four points emerged as we did the study:

- First, business computers offer a readily acceptable and fairly simple approach to any research problem where the collection and study of data from a few hundred or more subjects is required.
- Second, the amount of information that can be developed is astronomical.
- Third, and quite important, the expense is not prohibitive—this project cost under $2,000.
- Finally, within the limitations of the material coded in the cards, the method offered is practically 100% accurate.

No one ever has been able to distinguish between the demand for medical attention and the need for medical care. The econ-

Edward D. Churchill, M.D.

Medical Wa

omist can shy away from arguments about the importance of the wants to be satisfied. The doctor cannot avoid the thought of appendicitis when a mother telephones that her child has thrown up his supper and says his stomach hurts. Here lies a basic difference between the supply of medical service and the supply of many other personal services or of a commodity such as automobiles. Medical wants, whether real or imagined, more often than not are based on apprehension and fear.

Dr. Churchill is the John Homans Professor of Surgery, Harvard Medical School and Chief, General Surgical Services, Massachusetts General Hospital, Boston, Masachusetts.

Address for the Harvard Foundation for Advanced Study and Research, Harvard University, June 14, 1961.

Medical wants demand medical service; medical needs require medical care. Service at the individual level involves an interpersonal exchange between doctor and client which has a twofold function. First comes the assessment of the need for medical care. Having determined a need, then follows the provision of suitable care or guidance either by direct or indirect means. When wants deemed urgent by the client are not expeditiously met, the service is judged unsatisfactory. To inform a client that he does not need medical care may in itself provoke or intensify dissatisfaction.

The Foreword to the Special Supplement of the October (1960) issue of *Harper's* opened with two statements: "1. American medicine is the best in the world.

Wants and Needs

in Mature and Developing Nations

2. Millions of people are dissatisfied with the medical care they are getting."

It is not clear that the editors of *Harper's* made a distinction between service and care—between wants and needs—when they phrased the statement that millions are dissatisfied with their medical care. Also, many who seek medical care are already unhappy people. The very act is likely to be an expression of dissatisfaction with some personal situation. The situation may reflect some need that is not remediable by medical care; its roots may be economic, legal, or political, genetic or cultural. In some instances the physician may be able to help the client acquire insight into the true nature of his want even though it is beyond his power to satisfy it; in others, even this is impossible to achieve. While the term "mental health" has again come into common usage it should be recognized as an open-ended and, indeed, compounded abstraction which falsely conveys a sense of the concrete.

Turning again to the two statements in *Harper's,* it is clear that the key to the paradox lies in the superlative "best." Best for what? Wants or needs?

What do the people, the "consumers" of medical service want? As a recent writer has said: "They want more of the doctor's time! It is their one . . . important complaint: Doctors are too busy . . . we'd like to talk more, to tell them more; we'd like them to explain more, to listen more."

In Galbraithian economics "as a society becomes increasingly

affluent, wants are increasingly created by the process by which they are satisfied." Is medicine caught in the squirrel wheel model of the good society?

Scarcities in war

Toward the end of the European phase of World War II, Henry L. Stimson, then Secretary of War, had occasion to say that we had come ". . . rather suddenly in sight of the ultimate limitations of manpower and resources." So far as the medical profession was concerned, this experience highlighted a significant difference between the supply of health personnel and the supply of comany commanders or of trucks and ammunition. It is impossible to increase the supply of physicians at short notice.

The supply of physicians is but one element in meeting health needs and wants. Mr. Stimson mentioned resources; there is also organization of effort. The application of the wide range of techniques which protect man from the hazards of his environment requires that individuals organize themselves or be organized in those endeavors that are directed toward a specific goal. Our society is well aware of the fact that technology submerges individualism and is accelerated by a well knit social structure. Some comfort is found in the frank admission that the application of techniques is only one facet of the total human endeavor.

A military undertaking affords a prime example of the concentrated application of technology to attain a specific and limited objective. In consequence it becomes a depersonalized affair. Speaking from within the framework of the army, Mr. Stimson made the assumption that organization at the technological level would take place. To remind the command that there was a limit beyond which submergence of the individual could not extend even in war, he stated: "I consider that the care of the sick and wounded and the character of the hospitalization in the Army are matters for the direct responsibility of the Secretary of War." Having personally accompanied Mr. Stimson in his inspection of army hospitals in Italy, I can testify to the seriousness with which he invested this responsibility.

Steps were taken during the initial phases of the war to divide the medical manpower fairly between military and civilian needs. Age and physical fitness helped make the division. Military needs were met only by a careful

allocation of physicians and the use of each man to the best advantage in his field of expert skills. The sick and wounded with specialized clinical needs were brought together into centers where specialized personnel were concentrated. Military doctrine was set aside and this adaptive planning extended from the zones of combat in Europe and in the Pacific to and through Continental United States. It was learned that transportation need make little difference except in the mind of the patient.

The population at home increased by 5 million during the war. By exhausting effort the physicians allocated to civilian needs were able to meet the demands placed upon them. Nevertheless, to use again the words of Mr. Stimson, we came "rather suddenly in sight of the ultimate limitations of our manpower."

The experience of World War II warns of the necessity for long range planning in supply and organization. Today the need for physicians must be measured against the rapid growth of the population with a more than proportionate increase in the younger and in the older age groups. These require the most medical service, and exhibit the greatest need for medical care. The wants of the entire population call for thoughtful appraisal.

Scarcities of the future

The Surgeon General of the Public Health Service, in 1958, asked a Consultant Group on Medical Education to report on how the nation can be supplied with adequate numbers of well qualified physicians. The supply is conventionally measured by the number, including osteopathic physicians, for each 100,000 of the population. The maintenance of the supply depends primarily on the number of students graduated. By 1975, the Consultant Group reported, the nation will need 330,000 physicians and an annual graduation rate of 3,600 more than the present rate. So if the minimum goal of maintaining the present ratio of physicians to population is to be met, the facilities of existing medical schools must be increased substantially to enable them to increase their enrollment and new schools must be established. This expansion, the Consultant Group reported, must be undertaken at once. Delay will only magnify the impending deficit.

This report is presumably the national guideline but its implementation will only maintain the present numerical ratio of physi-

cians to population. In 1975, if the assumption of the Editors of Harper's is correct, "millions of people" will still remain "bitterly dissatisfied with the medical care they are getting." Also, let us not be completely unaware of certain pockets in this country in which very large deficits in medical care lie concealed. Citizens are now directing energies toward bus terminal washrooms and lunch counters; sooner or later they will peer into these pockets. There will be found not only economic, but ethical, moral, legal, and religious issues that make the washroom appear like a problem in elementary arithmetic.

Quality

I shall pass over the "resources" mentioned by Mr. Stimson with a single comment. The supply of physicians has been measured only in its quantitative aspect. Quality is of paramount importance. In this century science has provided the doctor with powerful tools—tools that, used with expert skill, determine the issue between life and death; between hopeless crippling and useful life span. These tools are forged in laboratories of science and are being handed to practicing doctors at an increasing rate. Poor or non-rational medicine is expensive medicine — expensive in dollars and in life and suffering.

Poor medicine may be the product of mediocre education or defective motivation. It also stems from the circumstance that the physician must have access to data now frequently unavailable to him or meaningless if he tries to obtain them himself. For action he must have access to tools and skills he does not possess and that may be beyond his reach. As Secretary of War, Mr. Stimson was safe in his assumption that military doctrine provided organization that would make effective use of physicians and also would provide them access to tools and facilities. His concerns were limited to manpower and resources. My repeated reference to the model of military medicine should not be taken by implication that I consider such a system acceptable by or desirable for the American people. Its defect—submergence of the individual—has been indicated. On the other hand, it may be folly to assume that effective use of physicians and their access to tools and facilities will arise spontaneously.

Professor Emmet Hughes recently described the model of the practice function of the profes-

sion in civilian life. I may add that this model exists not only in the minds of the people but lingers in the conventional wisdom of the profession itself. "A series of individual practitioners, each working with his own tools, and each of whom waits in his office for people who come with their problems . . . to seek his advice and action . . . all can be treated at the appropriate level by the simple device of the physicians placing themselves strategically and making the decision as to who needs what in the way of medical care." As Professor Hughes comments, few should take that model of medical practice seriously, and, I may add, some do not, as events are showing. Practice on such a model will be severely strained to meet the needs of a rising population; it is already showing its inability to keep pace with the wants of an age of high mass-consumption. On the other hand, in the minds of many conscientious physicians only this model can supply the benefits of individual medical service. Their clients both accept and demand it. However, Professor Rostow has counselled: "A society like the United States . . . must use its resources fully, productively, and wisely. The problem of choice and allocation —the problem of scarcity—has not yet been lifted from it."

The dilemma shared by profession and community is found in the extent to which the interpersonal elements of medical service can be submerged in order to provide the powerful technology essential to effective medical care. The problem of scarcity may not permit us to enjoy both.

Organizational revolution

Rapid changes in scientific and social attitudes are testing the ability of all professions and other groupings of human activity to adapt themselves to new situations and responsibilities. Observers familiar with cyclic periods of reorganization in the history of professions have recognized the present time, manifested by problems and dilemmas that appear insoluble, as a period of organizational revolution. Certain directions in which the medical profession may move and is being moved to bring its manpower and resources into line with its basic commitments are already discernible.

Measures to yield more effective use of the doctor's time seem inevitable. Integration of specialist skills with each other and with the generalist is already on its way. The past 14 years have seen

a 300 percent increase in the number of doctors in group practice and also in the number of groups. Large systems of medical care under governmental or labor union sponsorship have appeared. Further delegation of simpler professional judgments to members of other health professions and of technical tasks to ancillary health personnel is economically sound and will reduce the overall work-load on educational institutions. It is tempting to say that the nurse can take over some of the work of the doctor. She has done so for many decades and will continue to do so. But the nursing shortage is a rock on which the nation's hospital system has repeatedly foundered. Medical education itself is under scrutiny by faculties attempting to conserve time and yet maintain standards of excellence.

A recent editorial highlights the situation that is developing with respect to the family doctor. In 1930 about 69% of students chose this field for their life work; in 1960 only 35%. This in itself will make it necessary for communities to establish some reasonable limit to the responsibility of the physician with respect to both the screening and care of the social ills and ailments that are being placed on his shoulders. The humble illustration of the sick child was drawn from the experience of a conscientious doctor in a small community. He responded to the call but found that the real reason for the vomiting and pain was an angry dispute between the child's parents. After a busy day he had to stay until long past midnight in an effort to straighten matters out. An experienced visiting nurse or trained social worker, or even the wise neighbor next door might well have handled this situation.

Social control

When scarcities of personnel and resources make it impossible for doctors to supply the health needs of a population, some device to meet wants may be countenanced by the politician even though the principles of sound medical care may be violated by it. The effort may be well intentioned but takes the form of token medical service as a means of keeping the people quiet. The *aequanimitas* of the healer assures the equanimity of the society by quieting the chain reaction of emotion touched off by the advent of illness. It is of passing interest to note the large numbers of women who have en-

tered the health services of the Soviet Union. It is true that they are variously labeled as doctors, nurses, and social workers but they are used to perform surprisingly similar functions.

The social control function of medicine became visible in the United States in the period of the Great Depression. The cost of medical care moved into the spotlight and brought forth the report of a privately sponsored Committee on the Costs of Medical Care (1932). Although "millions of our people" now may be "dissatisfied with the medical care they are getting," they have not as yet marched on Washington. It is not commonly recognized that medical wants and even hospital bed occupancy rise and fall with the stock market.

Health as a right of all

As I have implied, one of the basic changes of the present century is the transition of medical care from an ancient practical art toward an applied technological science. Medicine for the first time in its long history has come into possession of powerful tools. Because these tools are of value only when applied with professional skill and learning, it may be said that the profession holds a monopoly on their use. This is highly significant, in view of the fact another change has been the conversion of health from a privilege of a favored few to the right of all. This phenomenon dramatically came to the surface during World War II in England. It precipitated their National Health Act — although this was the culmination of a series of events underway for several decades. Climactic events of the war and the "share and share alike" attitude of the people—not the words of Aneurin Bevan—nationalized English medicine. T. F. Fox, editor of *The Lancet,* recently stated ". . . the principle underlying health service 'to each according to his need' has now come to seem so natural that most of us are quite shocked when we see anyone relating medical care to the patient's capacity to pay."

This principle was written into the charter of the World Health Organization. If for no other reason than the consideration of social control, it has become of imminent concern in the implementation of our national policy in aid to developing nations.

The developing nation of India

When one turns to the developing nation of India the illustration of the sick child becomes irrelevant. In a remote rural

village there is no telephone, no doctor, children frequently vomit and complain of abdominal pain and very often children die. Nature makes provision for this happening by having another child on the way. The illiterate mother has never heard of appendicitis. The thought goes through her mind that if fever sets in, the overdue offering to Ganapati must be made.

To the people of rural India sickness is as much a moral as a physical crisis. According to the cultural system of the person, symptoms of physical disability are connected to moral weakness by a chain of convictions involving nutrition, blood, semen, and transgressions of the ethical code. Ideal remedies for symptoms include pilgrimages and ritual baths to wash away one's sins —atonements rather than tonics —Ganges water, not typhoid vaccine.

The health wants of this vast population are by no means focused on its medical profession. Nevertheless, the mind of the alert politician has grasped the significance of the symbol of the healer as an agent of social control. Irregular practitioners outnumber regular doctors ten to one in India. Herb doctors, homeopaths, hakims, witchdoctors and many others are free to practice their arts and flourish among the illiterate agricultural peasants.

I have implied that the toleration of irregular practitioners in rural India is at least in part a realistic device to maintain social control. For documentation I cite a little known comment by Gandhi himself. It was published in his "Young India," in 1925, and gives his frank evaluation of Ayurveda, the great school of herb doctors.

"Had I been absolutely hostile to the movement," Gandhi wrote, "I should of course have declined the honour [of laying the cornerstone of the Ashtanga Ayurveda Vidyalaya in Bengali] at any cost.

Stagnant

. . . I hope the college will contribute to the alleviation of real suffering and make discoveries and researches in Ayurveda that will enable the poorest in the land to know and use the simple indigenous drugs and teach people to learn the laws of preventing disease rather than curing them . . . My quarrel with the professors of Ayurvedic system is that many of them, if not indeed a vast majority of them, are mere quacks pretending to know much more than they actually do . . . They impute to Ayurveda an

omnipotence which it does not possess, and in so doing they have made it a stagnant system instead of a gloriously progressive science. I know of not a single discovery or invention of any importance on the part of Ayurvedic physicians as against a brilliant array of discoveries and inventions which Western physicians and surgeons boast . . . Let our Kavirajis, Vaidyas and Hakims apply to their calling a scientific spirit that Western physicians show, let them copy the latter's humility, let them reduce themselves to poverty in investigating the indigenous drugs and let them frankly acknowledge and assimilate that part of Western medicine which they at present do not possess."

And so Gandhi, the living symbol of the simple virtues of the Indian way of life, knew well the worthlessness of the remedies being peddled to village folk. He himself exhibited the symbol of the spinning wheel, as obsolete as the herbal remedies. I trust that my Indian friends will forgive this dissociation of the political alertness of the young M. K. Gandhi from the spiritual teachings of the mature Gandhiji.

Economic growth however means the building of a new society. It is our national purpose, as well as the dream of Gandhi, that the concept of human dignity be built into these societies as they develop. The needs for medical care are obvious. They crowd in from all sides. Hopes and demands for medical care are rising. For the political economist to measure the allocation of the aid dollar solely in terms of income generating investment or to insist on a demonstrable effect on the gross national product may be penny wise but pound foolish. As someone has said: "Accept Copernicus and Voltaire is inevitable."

Festival

I have selected as a contrasting illustration of contemporary medicine in India, the arrangements for the 1960 great Hindu religious pilgrimage to Allhabad in the State of Uttar Pradesh as described by A. Leslie Banks, Professor of Human Ecology at the University of Cambridge. On the main bathing day at the confluence of the Ganges and Jumna there was an attendance of four million pilgrims. It was from this festival above all others that the great pandemics of cholera have spread in the past. Pilgrims arrive from all directions by rail, river, bus, bullock cart, bicycle, tonga or on foot. The camp area pre-

pared covered 35 square miles. In 1960 the sanitary and medical arrangements planned and carried out (under the direction of Dr. K. M. Lal, Director of the Uttar Pradesh State medical and health services) were so efficient that no case of infectious disease arose. In 1954 the festival was the scene of a tragedy when several hundred pilgrims were crushed to death. In 1960 only a variety of minor injuries were reported.

The magnitude of this accomplishment can be gauged by recalling the scene at one of our major sports events and then picturing four million poor, superstitious and illiterate but not unintelligent rural folk crowding in for a dunk in a small muddy river.

Public and individual preventive medicine

In developing nations the application of health measures logically takes place in sequential phases. The situation in each area thus calls for separate appraisal. Public health measures and sanitation applied at the community or mass level permit the urbanization essential to economic growth and they control such inhibitors to agricultural development as malaria. These primary measures can be expected to yield the greatest good to the greatest numbers at minimal fiscal outlay.

Mass inoculation against cholera, as applied to the Allahabad pilgrims, is an example of one component of preventive medicine that allies itself naturally with public health. In many developing areas, and Uttar Pradesh is one, the public health phase largely has been accomplished or competently planned. In our own nation, of course, public health, sanitation and allied forms of preventive medicine are in a mature and continuing phase.

There is another component of preventive medicine coming into mature societies that naturally allies itself with curative medicine because it is applied at the individual rather than the mass level. This is a relatively new concept and has gained ground slowly in actual medical practice except for periodic health examinations. Wholesome advice about habits of living is not generally accepted by American people until they have felt the twings of disease. Nevertheless, increasing emphasis on individual preventive medicine may be expected as the understanding of degenerative diseases and their compli-

cations provides a specific factual foundation. This shift of emphasis may well be one more factor in bringing new patterns of organized effort into professional practice. It will both increase legitimate wants and require greater cooperation in practice.

The following statement written by Dr. Frederick T. Hatch, Chief of the Arteriosclerosis Unit at the Massachusetts General Hospital, provides illustration. The members of a large hospital staff were recently invited to submit free wheeling comments on the events that are having an impact on the activities of medical practice and consequently on adaptive changes that may be anticipated. Dr. Hatch wrote as follows:

Arteriosclerosis

"Arteriosclerosis, the greatest current health problem of the civilized world, presents a major challenge to Medicine. This disease—in particular its involvement of the coronary arteries—is showing an alarming tendency to invade the third and fourth decades of life in males and the fourth and fifth decades of life in females . . . the accumulation of relevant knowledge in the biological and medical sciences is advancing faster than ever before. This rate of development virtually assures us that the basic information necessary for understanding the mechanism of production of arteriosclerosis is now, or soon will be, available. One may therefore anticipate the future need for large scale clinical trials of new measures for prevention or treatment . . .

"Of immediate, indeed current, importance is the probability that individuals with a high risk of developing the complications of arteriosclerosis can now be selected and managed in accord with this new knowledge. The U. S. Public Health Service Study, at Framingham, Massachusetts, and other studies now indicate that male subjects who exhibit, even in mild degree, two or more of three abnormalities—obesity, hypertension and elevated blood cholesterol — have about 10 times greater risk of coronary disease than subjects with no one of these abnormalities. Thus the high-risk individual selected on the foregoing basis appears to have a 50-50 chance of actually having a myocardial infarction between 45 and 65 years of age. These high-risk subjects are not at all uncommon in our population.

"Thus, a combination of biochemical, clinical and genetic

information may permit in the near future a fairly accurate estimate of the risk of coronary disease in an individual subject. Evidence now available suggests that management of the nutrition of susceptible individuals sometimes combined with drug therapy, will correct the metabolic abnormalities and perhaps arrest the progress of arteriosclerosis. It seems reasonable to anticipate that the application of such preventive measures may soon become rather widespread for the protection of a large number of individuals between 20 and 60 years of age.

"The proper application of the combined nutritional and pharmacological approach to prevention of ischemic heart disease will require long-term observation and reinforcement. It seems likely that the complex requirements for assessment of risk, and clinical and nutritional control will necessitate the organization of cooperative enterprises which have not generally been a part of medical practice. Individualized preventive medicine may thus become in the forseeable future one of the most important contributions of the internist and general practitioner."

I will remind you that this was written as a privileged intraprofessional communication — not as an appeal for funds or publicity. Should Dr. Hatch's hypothesis prove correct and the need is established to make individual preventive medicine of this order available to large numbers of the people, the profession will be faced by an unprecedented problem.

Summary

In a mature nation in an era of high mass-consumption, health wants expand and needs relatively are diminished. The key supply of manpower is expensive to educate and is not subject to rapid expansion, particularly in view of the great weight of the factor of quality. Full, effective and wise use of manpower and resources for needs will be required by a rising population. Organizational changes within the profession directed toward this end may be anticipated, and the nature of some of these changes is already discernible. Acceptance by the community and cooperation of the individual are necessary.

In developing nations visible needs far exceed expressed wants. With economic growth needs will multiply and wants increase. These may be met at first by public health and mass pre-

ventive measures. Individual rational medicine, both curative and preventive, cannot long be delayed. These measures build human dignity into the new social order and are essential to social control. Health measures can be phased into a developing economy at the rate they will be accepted by the people.

The health wants and needs of our mature nation have been placed in juxtaposition with those of a developing nation. Only by such a perspective can the health professions appraise their abilities to contribute directly or indirectly to the national program of aid. The problem of scarcity hovers over the area of health despite and in part because of the era of mass-consumption into which our society has moved. In no other area of activity is it more essential to apply the national policy of helping those nations that give evidence of helping themselves. Professional undertakings must be wisely conducted and maximally productive. Allocation of scarce manpower to direct participation abroad will require acceleration of organizational adaptations at home to meet internal needs. Scarcities in resources, which in the field of health are met by the educational system itself, call for strengthening of this effort.

Conclusion

The basic strength of a mature economy is found in the ability of its citizens to cast aside outgrown and rigid organizational models and adapt themselves to change.

The basic strength of a developing economy is not measured by the gross national product, its heavy industries, or by its coal and oil reserves. Here also, it resides in the human factor. It is man himself who brings his society into being and preserves his right to change it as he sees fit. A sound and healthy citizenry is the prime requisite to create, staff and run a modern nation and bring about adaptive change by lawful means.

A **Resident Physician** MONTHLY FEATURE

Clinical Pathological Conference

The Rhode Island Hospital, Providence

A 63-year-old white male was admitted to the hospital for the fourth time because of inability to void urine. Acute retention had occurred two weeks prior to admission and recurred again one week prior to admission. A Foley catheter was inserted and patient was admitted for definitive surgery.

Past history

Past history revealed that the patient had syphilis at age 24 for which he received intramuscular injections for two years. At age 46, a cholecystectomy was performed (First Admission). His hospital course was uncomplicated except for a mild albuminuria.

He was readmitted three months later with acute pyelonephritis and a prostatic abscess. A lumbar puncture was normal as was serological study of the spinal fluid. The same year he had some failure of vision which remained poor thereafter. Neurological examination revealed some paleness of the optic discs but was otherwise normal. A course of 15 I.M. injections of tryparsamide was given (Third Admis-

sion). A lumbar puncture several months subsequent to therapy was also normal.

Physical examination

Physical examination on the fourth admission revealed a well developed, well nourished white male in no acute distress. The pupils reacted to light but only poorly to accommodation. The peripheral fields of vision were constricted. The mouth and pharynx were normal. The chest was clear and the heart was normal. The abdomen revealed a well-healed scar from previous surgery and a mild diastasis recti. The prostate was smooth and markedly enlarged. Remaining examination was not remarkable.

Temperature 98.6; pulse 94; respirations 20 and blood pressure 138/84.

The hemoglobin was 13.8 gm./100 cc; red blood count 4.35 million and white count 8,200 with 83% polys; 15% lymphocytes; and 2 eosinophils. Urea nitrogen was 9 mg % and the fasting blood glucose 93 mg %. Blood Hinton was positive but the Wasserman was negative. A chest x-ray showed slight prominence of the bronchovascular markings of the right lower lobe but was otherwise normal.

On the third hospital day a suprapubic prostatectomy and bilateral vasectomy was performed. The patient tolerated the surgery well. Following surgery, he developed a pharyngitis and laryngitis with tender regional lymph nodes and inflamed looking vocal cords. The temperature rose to 101° on the fourth postoperative day, was then normal for 3 days, and again at levels up to 101° for 3 days; thereafter normal. The patient had been placed on Dicrysticin postoperatively but this was changed to terramycin on the fourth postoperative day. Despite antibiotics and local therapy, the pharynx remained red and sore. His surgical wound healed well and he was discharged on the 23rd hospital day still complaining of a sore throat.

Tissue examination

Histopathologic examination of the prostatic tissue revealed benign prostatic hypertrophy and chronic granulomatous inflammation.

During the interval at home (six weeks) prior to fourth admission, the pharyngitis had persisted. In addition, for several days prior to admission, he had been voiding a cloudy urine almost hourly.

Physical examination revealed

the pharynx to be dry, red, and glistening with several small vesicles and superficial ulcerations. It seemed distinctly worse than when seen ten weeks before. The physical examination was otherwise not remarkable.

Temperature 98.6; pulse 100; respirations 20; blood pressure 140/90.

The hemoglobin was 10.3 gm/100 cc; red count 3.35 million and white count 11,950 with 74% polys and 10% bands. Urinalysis showed a specific gravity of 1.017 with two-plus proteinuria, no red cells and loaded with white cells. No casts were seen. The blood glucose was 87 and the urea nitrogen 14. Urine cultures obtained by retrograde study grew out aerobacter aerogenes and pseudomonas aeruginosa. A lumbar puncture was normal. The Hinton and Wasserman tests were positive, the latter only weakly.

The acid phosphatase was 1.3 and the alkaline phosphatase 8.6 K.A. units. Thymol turbidity was 8. The total protein was 5.0 gm % and the albumin 1.0 gm%. Smears and cultures of the urine, sputum and spinal fluid were negative for tuberculosis.

X-ray of the chest revealed a dense irregular shadow in the left apex behind the first rib. A subsequent film seven weeks later showed persistence of the lesion in the left apex, prominent root structures on the left, and hazy infiltration in the posterior and central portions of the right lung interpreted as a focal area of pneumonitis.

A retrograde pyelogram was normal and x-rays of the hand revealed no changes consistent with sarcoidosis.

An L. E. cell preparation was negative and a calf muscle biopsy showed chronic focal inflammation. An electrocardiogram showed minor QRS changes possibly consistent with some myocardial damage but not diagnostic.

Histopathologic examination following a transurethral resection again revealed focal granulomatous inflammation in the prostate.

Course

The patient's hospital course was slowly and progressively downhill. He developed generalized muscular pain which increased with movement. In the fourth week, the urea nitrogen had risen to 39 and the creatinine was 1.4.

In his sixth week in the hospital and about one week prior to death, the BUN had risen to

135 with a creatinine of 6.3. The pharyngitis persisted. Despite large doses of antibiotics, local and supportive therapy, he failed to respond.

The first three weeks of hospitalization was characterized by a febrile course with a maximum temperature of 103.8. With institution of cortisone by mouth, the temperature dropped to normal and remained so throughout the remainder of his hospitalization, though the heart rate was persistently rapid (100-120), the WBC elevated to 14,000 to 18,000 with 88% to 94% polys. The patient, however, did not otherwise respond. With the onset of the elevated urea nitrogen to 187, his course was rapidly downhill. He died on his 51st hospital day.

Discussion

DR. F. DENNETTE ADAMS, *Member Board of Consultation, Massachusetts General Hospital, Boston* (by invitation of the Chief of Medical Service): The first diagnosis that comes to mind in a problem of this type is that of an ascending urinary tract infection with necrotizing papillitis and septicemia. I am doubtful of this diagnosis in light of the negative pyelogram done shortly before death, but it is still tenable.

Another possibility is that the patient may have developed a pelvic phlebitis extending to involve the inferior vena cava and the renal veins. There are too many aspects to this patient's picture that could not be explained by either of these diagnoses so I am forced to rule them out.

Most striking is the evidence pointing to a generalized disease and not just involvement of the urinary tract and the pelvic and inferior vena cava system. The pharyngitis and laryngitis, the former persisting even after the first discharge from the hospital, the evidence of pulmonary involvement, the muscle tenderness and evidence by biopsy of chronic focal inflammation all point to the likelihood of a diffuse generalized illness.

Collagen

One wonders about a fungus infection such as monilia, or about tuberculosis, lymphoma, and multiple myeloma. None of these seem to me sufficiently supported by the evidence presented to justify more than passing consideration. What is more likely on the basis of the findings of generalized disease is one of the collagen disorders, and of these, by far the most likely is poly-

arteritis nodosa. Against lupus is the sex of the patient, the absence of joint or serous membrane involvement or of hypertension, and the negative L.E. cell preparation. Neither dermatomyositis nor scleroderma have anything to suggest these diagnoses.

The involvement, however, of several body systems, the fever and progressive downhill course, the renal shut down, the muscle biopsy, etc., all point strongly to a diffuse form of disease characteristic of polyarteritis. I had come to the conclusion myself that this was what this patient had. In discussing it with my residents at the hospital, I was advised by one of them to give consideration to that type of arteritis described by Wegener as granulomatous arteritis. This syndrome, as such was new to me, but on looking up the description, I found this patient illustrates this syndrome to an impressive degree. The outstanding features in addition to fever, moderate anemia and leucocytosis without eosinophilia include a stubborn type of upper respiratory trouble — sinusitis, pharyngitis, laryngitis associated with bronchitis and a pneumonia-like picture shown to be due to granulomatous lesions in the lungs. There are similar lesions wide spread in the smaller arteries that involve many tissues of the body including voluntary muscle—a fact which would explain this patient's diffuse muscle tenderness. Finally renal failure is a common cause of death in these patients with diffuse arterial disease. My diagnosis in this case, therefore is that form of arteritis known as Wegener's granulomatosis.[1]

Autopsy

DR. HERBERT FANGER, *Director, Department of Pathology, Rhode Island Hospital; Associate Professor of Pathology, Boston University:* Autopsy revealed, just as Dr. Adams predicted, a necrotizing granulomatosis with angiitis also known as Wegener's granulomatosis. The major pathologic processes were in the heart, lungs, kidneys, prostate, seminal vesicles, spleen, liver and adrenals.

There was a generalized vasculitis chiefly involving the arterial tree with fibrinoid necrosis of the arterial walls and infiltration by polymorphonuclear neutrophils, histiocytes and occasional foreign body giant cells and Langhans' giant cells.

The heart revealed an interstitial myocarditis with infiltration by polymorphonuclear neutrophils, necrosis of muscle fibers,

and arteritis. In the lungs, prostate and seminal vesicles, there was a necrotizing granulomatous inflammation consisting of massive necrosis with surrounding aggregates of histiocytes, occasional foreign body giant cells and Langhans' cells. Focal areas of necrosis were found in the liver, adrenals and lymph nodes. There was an exudative and proliferative glomerulonephritis.

Godman and Churg[2] have reviewed this disease complex and have noted that the triad of granulomatous inflammation with necrosis, angiitis and glomerulonephritis are the most common pathologic features in this disease, and are present in this case.

The disease process is believed to be a hypersensitivity reaction, and resembles polyarteritis nodosa.

Although vascular lesions occur in both diseases, Wegener's granulomatosis differs, due to the presence of numerous histiocytes, as well as occasional foreign body giant cells and Langhans' cells. The glomerulonephritis is another manifestation of a hypersensitivity reaction.

The present disease is not believed due to syphilis, despite the history and serologic findings. The granulomatous inflammation differed from a gumma due to the absence of plasma cells, the more acute inflammatory reaction and the vasculitis.

The etiology of the hypersensitive reaction is unknown. It might have been due to arsensical therapy, but it seems unlikely after such a long time interval between administration and onset of symptoms.

The initial biopsy of the prostate was reviewed and the diagnosis of granulomatous inflammation confirmed. This was nonspecific and there were no vascular lesions. Nonspecific granulomatous inflammation occasionally occurs in the prostate.

However, based on the present experience, it is recommended that the possibility of Wegener's granulomatosis be considered in cases of obscure granulomatous inflammation.[3]

References

1. American Journal of Medicine 17:168-179 (Aug.) 1954.

2. Godman, Gabriel and Churg, Jacob: Wegener's granulomatosis. Pathology and review of the literature. Arch. Path. 55:533-553, 1954.

3. Fanger, H. and Hoffman, M.: Wegener's granulomatosis: A case report. Jnl. of Urol., 77:78, 1957.

Rhode Island H

Although privately endowed, Rhode Island Hospital functions as a municipal hospital for the Providence metropolitan area. Private, welfare and emergency patients present a wide range of clinical problems for the 88 residents, interns and fellows in 12 specialties.

ONE OF A SERIES

The Rhode Island Hospital was incorporated in March 1863 —just two months after President Lincoln issued his Emancipation Proclamation. Despite the prevailing feeling of financial insecurity brought on by the Civil War, a group of prominent physicians and dedicated citizens of Rhode Island succeeded in raising the necessary building funds through popular subscriptions. The $200,000 thus obtained was sufficient—at the time—to build and equip a 70-bed hospital, the first general hospital in Rhode Island and the seventh to be built in New England.

Later contributions from many private individuals as well as from corporations in the community have since swelled the hospital funds to over $40 million. Nonetheless, the initial generosity of the people from every section of the state and from all walks of life has not been forgotten: Rhode Island Hospital was named for these magnanimous Rhode Islanders rather than for any particular donor.

Hospital

Situated as it is near Narragansett Bay and just one mile from downtown Providence—the capital and center of Rhode Island's educational, cultural and recreational activities — Rhode Island Hospital services a metropolitan area of nearly one million persons. Since it is privately endowed, the Hospital remains free from state or city control. However, because there is no tax-supported general hospital in Providence, it carries on the functions of a large municipal hospital, caring for many public welfare patients and providing an active ambulance service and busy emergency ward services. A large percentage of its admissions, consequently, are of the ward-service class which, with the many outpatients, provide a wide range of clinical material and an excellent supply of teaching material.

More recently, Rhode Island Hospital has also become the focal point for medical research. A near neighbor, Brown University, is planning a course in medical sciences that will be the equivalent of two years of medical school work. The program is expected to get under way in September 1962. Providence College and four other colleges are also located in Providence.

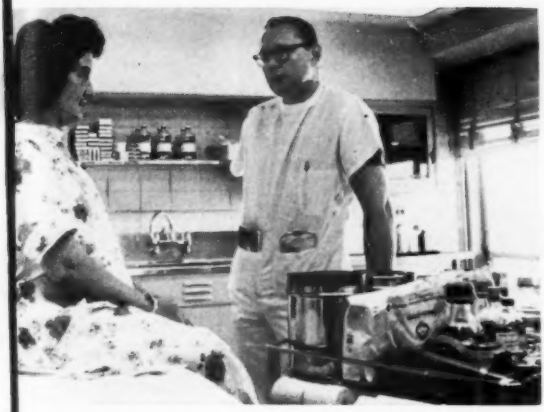
Patients' records are reviewed at a staff conference before making ward rounds.

Twenty-two buildings are located on Rhode Island Hospital's 28 acres of landscaped grounds. The Main Building, a 10-story air-conditioned structure, was completed in 1955 at a cost exceeding $8 million. In addition to administrative offices, staff rooms, dining rooms, and an interdenominational chapel, it has a complement of 452 beds, an intensive care unit to accommodate 63 critically ill patients and an operating floor with 14 rooms. A connecting building for children has 125 beds, and a separate building has accommodations for 101 adult private patients, making a total of 678 hospital beds.

A three-story cancer research building, also completely air-conditioned, was opened in 1959. In addition to therapeutic, consulting and diagnostic clinical facilities, it contains an auditorium seating 175.

Other units include a research laboratories building, outpatient buildings, a children's dental clinic, residences for graduate and student nurses, power plant, laundry and maintenance buildings. The newest building on the hospital grounds, officially opened on July 1, 1961, is a physician office building, with suites for 60 of the attending staff.

Peters House is a separate five-story brick residence for male house officers. In addition to the three dormitory floors, there are



House staff officer describes a plan of therapy to a patient in one of the treatment rooms.

comfortable lounges, a squash court, billiard room, television room, ping-pong room and an auditorium seating 85. Separate living quarters for female house officers are reserved for their use in a section of one of the nurses residences. The hospital does not maintain housing facilities for the married house staff, but suitable living quarters may be found at reasonable rentals.

Nursing, technical, clerical and secretarial positions are available for the wives of house officers on a full-time or part-time basis. The house staff has its own organized association and plans its own educational and recreational programs in addition to those programs arranged by the hospital and the various departments. These events are financed by the hospital and by the attending staff association.

Medical library

The hospital's medical library, staffed by a full-time certified medical librarian and an assistant, occupies a large part of the main floor in Peters House. Its 170 medical journals and over 3,000 bound volumes are available to the house staff at all times. The library is accredited by the American Medical Association and is a member of the New England section of the National Medical Library Association. Free interchange is maintained with the Rhode Island

The modern Main Building is centered among 21 others in the Rhode Island Hospital group.

Medical Library, the Countway Library of Medicine at Harvard Medical School, the various libraries of Brown University and the AMA.

Stipends and perquisites

Present stipend schedule is:

$100 per month during internship year.

$125 per month during 1st year of residency training.

$175 per month during 2nd year of residency training.

$225 per month during 3rd year of residency training.

$250 per month during 4th year of residency training.

In addition, the hospital provides full maintenance: room, board, uniforms, and personal laundry. Also furnished to each house officer are: State of Rhode Island license, Federal narcotic license, complete Blue Cross coverage and, if married, for his immediate family. Medication for personal use is also supplied without charge. Two weeks of vacation with pay is allowed during each 12 months of training.

The Education Committee of the Attending Staff Association initiates and directs the general policies relating to the education of the house staff. The chief of each department is responsible for the implementation and direct supervision of the training program in his service area. The full-time director of medical education is responsible for integrating the programs of the 18 departments so that each house officer may receive the maximum benefit from his training.

A detailed monthly report evaluating the professional ability and personal qualifications of each house officer is submitted by the chief, the responsible attending physician, and the senior resident on the service. These reports are reviewed periodically

by the director of medical education with the house officer.

For many years the Rhode Island Hospital has carried on its tradition of "learning-by-doing," now the generally accepted pattern. All training programs are kept under continuous scrutiny in order to keep them abreast of the rapid advances in graduate medical education.

An attending staff of 243 members is responsible for the teaching-training of the 88 interns, residents and fellows. At the present time 136 (56%) of the attending staff are diplomates and many of the remainder are eligible for board certification. Thirty-two staff members now hold, or formerly held, teaching appointments in various medical schools. High on the list of requisites for eligibility to staff appointment are the candidate's potential as a teacher and his willingness to assume the responsibility of teaching assignments with interns and residents.

Rhode Island Hospital is approved for 20 rotating internships and has been successful each year in filling its quota through the National Matching Program. Assignments during the 12-month internship comprise: 3 consecutive months in medicine, 3 in surgery, 2 months in pediatrics, 2 in obstetrics-gynecology and 2 months of an elective. An optional second year of general training is also offered. This two-year program has been a tradition at R.I. Hospital since 1882.

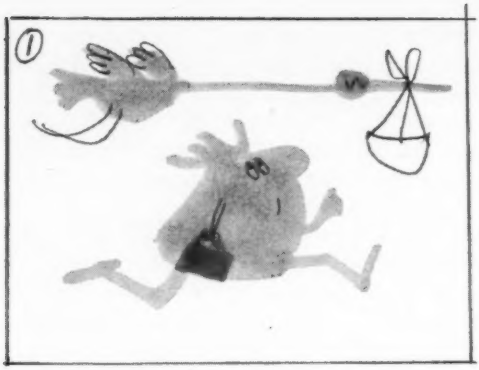
Residencies

Approved residencies are in operation in the departments of allergy, anesthesiology, cardiology, gynecology, internal medicine, orthopedic surgery, otolaryngology, pathology, pediatrics, radiology, surgery and urology. The initiation of residencies in neurosurgery and in ophthalmology is presently under consideration. To date no training program for residents has been established in the departments of dermatology, neurology and psychiatry, cancer research, cardiovascular research or physical medicine and rehabilitation.

● INTERNAL MEDICINE:

At the present time nine residents are in training. During the first year each resident is assigned to the emergency ward for 2 months of full-time duty, to cardiology for one month, to medical outpatient clinics for one month, to the care of ward-service patients for 3 to 5 months, and to private patients for 3 to 5 months.

During the following year (as

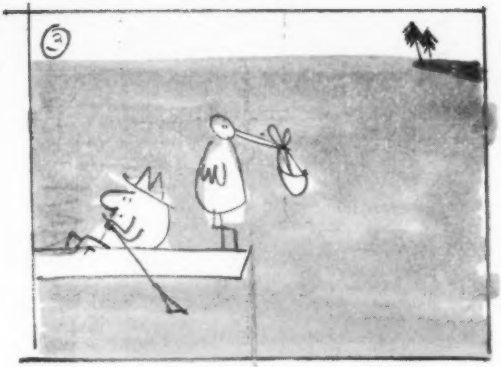


Hear about the new pediatric responsibility?

Nope. Faster, faster.

Teeth. They completely calcify at such an early age, lots of children don't get fluoride in time to effect maximum benefits.

Isn't that the dentist's area?

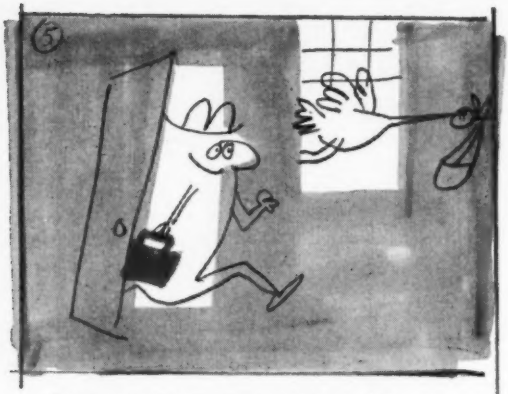


Trouble is many kids don't see the dentist soon enough. How many children under 4 go to the dentist?

Hmm. Faster, faster.

There's a new way to help insure adequate fluoride--take it right with the vitamins.

Good rationale. Faster!



Doesn't cost any more than plain vitamins either.

What age should babies start taking fluoride?

now is the time (the earlier the better) to protect his permanent teeth

The earlier in life you start fluoride the greater the benefits.
No time like the present.

Extensive evidence from studies in areas with fluoridated drinking water shows that the incidence of dental caries may be reduced as much as 60% in resident children compared to controls not receiving fluoride.

And—the younger the child at the time fluoridation is started, the greater the benefits. Because hard tooth substance begins to form at the embryonic age of about twenty weeks, fluoride should be administered as early in life as possible, if decay-resistant tooth enamel is to be achieved. Adeflor supplies fluoride with routine pediatric vitamin supplementation and costs no more than vitamins alone.

Note: The single lethal dose of sodium fluoride in the adult is between 5 and 10 Gm. On this basis, the lowest single lethal dose for a two-year old is 714 mg. This is more than 28 times the amount of fluoride supplied (25 mg.) in an entire 30 cc. bottle of Adeflor. Adeflor used when and as recommended supplies safe fluoride supplementation.

UPJOHN ANNOUNCES

Adeflor* drops

(Vitamins A-C-D and B_6 with Fluoride)

For tomorrow's dentition . . . for today's nutrition.

Costs no more than vitamins alone.

Brief Basic Information

Formula: Each 0.6 cc. of Adeflor Drops contains:

Vitamin A (Synthetic)	(5000 units) 1.5 mg.
Vitamin D_3	(1000 units) 25 mcg.
Ascorbic Acid (C)	50 mg.
Pyridoxine Hydrochloride (B_6)	1 mg.
Fluoride (as sodium fluoride)	0.5 mg.

Indications: As an aid in the prevention of dental caries and in the prophylaxis and treatment of deficiencies of Vitamins A, C, D, and B_6.

Dosage and Administration: Where the drinking water is substantially devoid of fluoride, infants and children may be given 0.6 cc. Adeflor Drops daily.

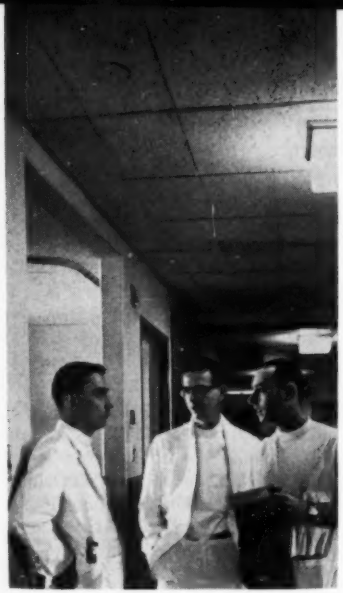
May be administered by dropping directly on the tongue or by mixing with water, milk, fruit juice, or food.

Precautions and Contraindications: The use of this product is recommended only in areas where the fluoride content of drinking water is known and is less than 0.7 parts per million.

Supply: 15, 30, and 50 cc. plastic bottles with a plastic, calibrated (0.6 cc.) dropper. Available on prescription only.

*Trademark, Reg. U.S. Pat. Off.

Upjohn



Residents get together after rounds for an informal and informative exchange of views.

assistant resident) assignments include 4 to 8 months on ward-service medicine; 4 to 6 months on private medicine. The assistant resident attends medical outpatient clinics including medical resident follow-up clinic, anticoagulant clinic, student nurses' sick call, thoracic clinic and gastrointestinal clinic.

As senior resident he supervises the work of interns and other residents, and carries on an active teaching program. He has the opportunity for research and for special clinical study of unusual and interesting problems.

Approximately 150 beds are allotted to the medical service and during the past year 4327 patients were admitted to this department. There were 14,239 visits to the medical outpatient clinics.

● CARDIOLOGY: Two fellows are appointed each year after completion of their residencies in internal medicine. Fellows investigate all forms of cardiovascular disease — congenital, acquired, degenerative, and some types of peripheral vascular disease. Training includes reading of all electrocardiograms, fluoroscopy and heart catheterizations. The fellows are responsible for pre- and postoperative medical care of patients preparing for cardiac surgery and for the treatment of cardiac patients in the cardiac outpatient clinic.

● PEDIATRICS: The training program is of 27 months duration. In addition to 12 months at the Rhode Island Hospital it includes training in the following four hospitals:

6 months at Children's Medical Center in Boston.

RHODE ISLAND HOSPITAL APPROVED RESIDENCIES

SERVICE	CHIEF OF SERVICE	YEARS APPROVED	PRELIMINARY TRAINING
ALLERGY	*Stanley S. Freedman*	1	pediatric residency
ANESTHESIOLOGY	*Meyer Saklad*	2	internship
CARDIOLOGY	*Frank B. Cutts*	1	medical residency
GYNECOLOGY*	*Henry C. McDuff, Jr.*	2	1 yr. gen. surg. (preferred)
INTERNAL MEDICINE	*Marshall N. Fulton*	3	internship
ORTHOPEDIC SURGERY	*Kenneth G. Burton*	4	1 yr. gen. surg then 3 yrs. orth
OTOLARYNGOLOGY	*Rudolph W. Pearson*	4	1 yr. gen. surg then 3 yrs. oto.
PATHOLOGY	*Herbert Fanger*	4	internship
PEDIATRICS	*Banice Feinberg*	2	internship
RADIOLOGY	*Lawrence A. Martineau*	3	internship
SURGERY	*Lester L. Vargas*	4	internship
UROLOGY	*Ernest K. Landsteiner*	3	1 yr. gen. surg.

* (In conjunction with 18 months obstetrics at Providence Lying-In Hospital.)

RHODE ISLAND HOSPITAL—SERVICE STATISTICS FOR 1960

HOSPITAL ADMISSIONS	20,067	EMERGENCY WARD VISITS (daily average 93)	34,182
TOTAL PATIENT DAYS (ward 29%, semiprivate 47%, private 24%)	197,848	OUTPATIENT VISITS	48,959
AVERAGE DAILY CENSUS ...	541	ELECTROCARDIOGRAMS	9,481
SURGICAL OPERATIONS	13,002	ELECTROENCEPHALOGRAMS ..	1,324
RADIOLOGICAL EXAMINATIONS	41,464	HOSPITAL STAFFS:	
CINEANGIOCARDIOGRAMS ...	81	house staff 84	
PATHOLOGY LABORATORY TESTS (8,327 surgical specimens)	431,518	attending staff 242	
AUTOPSIES (41.8% of total deaths)..	427	graduate nurses 262	
		student nurses 225	
		medical technologists and technicians 90	
		TOTAL 903	

3 months at Chapin Hospital for Contagious Diseases.

3 months at Bradley Hospital (for psychiatric problems of children).

3 months at Providence Lying-In Hospital (for newborns).

The pediatric department occupies a separate building of 125 beds, including a modern 32-bed unit for the extended care of children. The service has subdivisions in pediatric allergy, pediatric cardiology, encephalography, also child growth and development.

There are 36 on the attending pediatric staff, 23 of whom are Board certified. Many of the others are eligible for certification. In 1960, the plan of appointing a chief-pro-tempore each year was initiated in this department. The pediatric resident staff at present numbers seven.

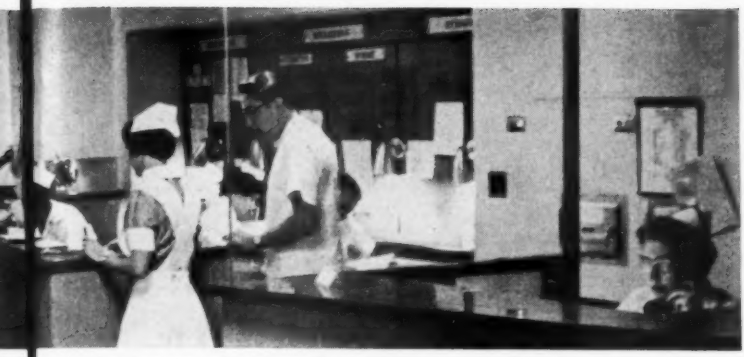
During the past fiscal year there were more than 1600 pediatric admissions, and nearly 6,000 visits to the 14 different pediatric clinics which are regularly scheduled.

● PEDIATRIC ALLERGY: The aim of this program is to provide thorough clinical training to one qualified physician each year. The candidate must have completed an approved pediatric residency. Pediatric allergy is closely tied in with the adult allergy clinic of the medical service and the resident also takes part in consultations of inpatients with allergic problems on all services in the hospital. Three pediatric allergy and two adult allergy clinics are held each week in the outpatient department. The resident attends Dr. Harry Mueller's allergy clinic at the Boston Children's Medical Center each week and other allergy meetings in Boston. Whenever a clinical research project in this field is in progress the resident becomes an active co-worker.

Nurses stations such as this one, are

● SURGERY: This program is approved for four years. The time is divided as follows:

6 months in the department of pathology



is one, are the focal point for round-the-clock care for all patients.

6 months in private surgery
10 months rotation—gynecology, orthopedics, urology and neurosurgery
2 months in surgical anatomy at Harvard Medical School
6 months on private surgery
6 months in ward surgery
12 months on ward surgery as senior resident.

The surgical residency program functions on the vertical system. In addition to training on the operating floor, emphasis is placed on bedside teaching. Surgical studies for publication in national journals are required of each resident. A special surgical fund for research and training bears the expense for a tour of duty to teaching hospitals in other cities arranged for each senior resident.

Admissions to this department last year exceeded 5500 with operations by attendings and house staff numbering nearly 3500.

● GYNECOLOGY AND OBSTETRICS. This program includes 24 months of gynecology at R.I. Hospital and 18 months of obstetrics at the Providence Lying-In Hospital. Selection of residents is made by a committee representing both hospitals. A year of residency in general surgery is strongly recommended although it is not a requirement of the American Board.

During his training at this hospital, each resident in gynecology is assigned a research project in collaboration with a member of the gynecology staff who is interested in a specific problem. The attending staff comprises 13 men,

RHODE ISLAND HOSPITAL
TEACHING ROUNDS AND CONFERENCES

MONDAY
Neurosurgery Grand Rounds
Surgical Grand Rounds
Heart Path Conference
Interservice Conference
Autopsy Gross Conference
Orthopedic-Fracture Informal Ward Rounds

TUESDAY
Cardiac Catheterization & Cineangiocardiography
Pulmonary Function Conference
Pediatric Grand Rounds
Surgical Grand Rounds
Surgical-Microscopy Conference
Clinical Pathology Students Lecture
Anesthesia Basic Sciences Conferences

WEDNESDAY
Cardiac Catheterization & Cineangiocardiography
Tumor Clinic
X-ray Conference
Experimental Cardiovascular Surgery
Informal Ward Rounds with Orthopedic Chief
Autopsy Gross Conference
Medical Residents Follow-up Clinic
Urology-Pathology Joint Conference

THURSDAY
Ophthalmology Teaching Rounds
Gynecology-Pathology Joint Conference
Thoracic Conference
Orthopedic-Fracture Informal Ward Rounds
Autopsy-Microscopy Conference

FRIDAY
Cardiac Catheterization & Cineangiocardiography
Pulmonary Function Conference
Pediatric Clinical Conference
Orthopedic-Fracture Conference
Cardiac Conference
Autopsy Gross Conference

SATURDAY
Cardiac Catheterization & Cineangiocardiography
Hearing and Speech Conference
Otolaryngology Clinical Conference
Neuropsychiatry Grand Rounds
Gynecology Grand Rounds
Pediatric Lectures
Anesthesia Conference
Neurology-Pathology Joint Conference
Neurology-X-ray Conference
Ophthalmology Conference
Surgical Conference
Surgery-Pathology Joint Conference
Urology Grand Rounds
Medical Conference
Experimental Cardiovascular Surgery

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12 of whom are diplomates.

At the Rhode Island Hospital last year 1100 gynecologic patients were admitted (34% ward-service); more than 1,000 gynecologic operations were performed; outpatient visits totaled 4300. The Lying-In Hospital admitted 9,846 patients and had 7,615 newborns.

● ORTHOPEDIC SURGERY: The complete four year program of adult and children's orthopedics and fractures was approved in 1948. The required year of general surgery following the internship may be taken at this hospital but equivalent training elsewhere will be considered.

In addition to the regular orthopedic clinics and fracture clinics, residents are assigned to pathology (4 months), radiology (one month), physical medicine and rehabilitation (one month) and to special clinics such as cerebral palsy, poliomyelitis, prosthesis, tumor and hand problems.

A two-month course in surgical anatomy at Harvard Medical School or Cornell University Medical College is part of this residency program.

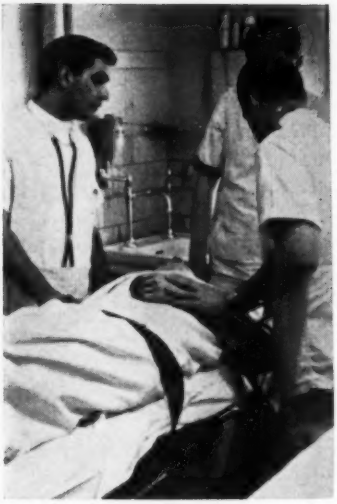
During the past year there were approximately 1800 admissions, 1100 operations, 4400 orthopedic outpatient visits, 3600 fracture clinic follow-up visits and 9100 orthopedic and fracture visits in the emergency ward.

● OTOLARYNGOLOGY: This is a four year residency, the first year of which must be spent in general surgery either at this hospital or in a similarly approved junior assistant residency. Each resident is assigned during his second year to the Graduate School of Medicine at the University of Pennsylvania for the 32-week graduate courses in the basic sciences and their clinical applications to otolaryngology. During his senior year the resident, through the department of oncology, is given experience in the techniques of perfusions and infusions as they are related to the treatment of head and neck cancer.

Last year 2354 patients, 21% of whom were in the ward-service class, were admitted to this service. Operations totaled 2348, and outpatient visits 5745.

● UROLOGY: Since 1956, this program has been approved for three years of training. In addition to major urological surgery of all types, departmental activities include: outpatient clinics, daily ward rounds, weekly grand rounds, monthly CPCs, and informal teaching rounds each week.

Valuable teaching material is also furnished by the fertility clinic, cancer detection clinics (for males and females), tumor clinics and the urological follow-up clinic—all scheduled regularly throughout the year. These outpatient clinics accounted for 2523 visits last year. The house staff also works with the artificial kidney and attends weekly confer-



The Emergency Room is a busy center of learning and first care. Here residents reassure an accident victim.

ences on renal diseases and related subjects.

All seven members of the attending staff are board diplomates.

During the past year 794 patients were admitted (22% ward-service), and urological examinations totaled 949.

● ANESTHESIOLOGY: In general, the program, approved for two years of training, is planned to increase gradually the scope of challenge and responsibility as rapidly as the resident's knowledge and abilities warrant.

The resident is taught the effects of the various anesthetic agents and the methods of their administration with the greatest degree of safety. In addition to instructions in clinical problems, there are weekly seminars covering such basic science topics as: (1) pharmacology of inhalation agents, (2) chemical considerations and problems of absorption anesthesia, and (3) the physics of explosions.

Teaching and supervision are the responsibility of a competent full-time staff of nine, 5 of whom are board diplomates. The great number of surgical procedures on patients in various degrees of physical state makes possible all types of anesthesia. The department maintains its own research facilities, its own libary, slide files and reprint files.

About 13,000 patients are anesthetized each year, approximately 40% of whom are service.

● PATHOLOGY: The Institute of Pathology in the Rhode Island Hospital offers laboratory coverage not only to this hospital but to three other hospitals in Rhode Island. The staff consists of a director-pathologist, an associate pathologist, three assistant pathologists, a Ph.D. biochemist, a Ph.D. bacteriologist — all full-time—and a part-time neuropath-

ologist. The Institute is closely associated with Boston University School of Medicine and Tufts University School of Medicine.

Each resident has his own assigned space in the residents' laboratory. The residents perform autopsies, both gross and microscopic examinations under supervision. They dissect surgical specimens, examine and describe the microscopic sections. They participate in frozen section examinations. Training is given in histologic technique and in histochemistry. Residents are taught how to take photographs.

Residents in pathology are eligible for fellowship grants in addition to their monthly stipend.

Over 431,518 tests are performed annually, including 8810 surgical specimen examinations, 427 autopsies and 647 sections.

● RADIOLOGY: This residency is fully accredited as a three-year program comprising both diagnostic and therapeutic roentgenology. It is staffed by two full-time and two half-time radiologists—all board diplomates.

The first two years are devoted to diagnosis, interpretation of films and fluoroscopies. During this period, each resident is also assigned to a course in radiation physics and basic isotope techniques, which is sponsored by the New England Roentgen Ray Society and conducted at the Massachusetts Institute of Technology on a weekly basis, for approximately six months.

He is also assigned to pathology for 6 months to participate in formal conferences on surgical pathology, to attend autopsies, and other activities in pathology. The radioisotope laboratory is authorized by the Atomic Energy Commission to use radioactive iodine, colloidal gold, chromium, radioiodinated serum albumin, and phosphorus.

During the third year each resident is assigned to radiation therapy, including x-ray treatments and cobalt teletherapy.

Last year, 37,757 roentgenological and 4,167 fluoroscopic examinations were made; 6,449 x-ray or cobalt treatments were given.

Research

At present, 26 approved research projects are in progress within the hospital, financed by grants from the federal government or private foundations, or by special funds of the hospital. A research committee of the staff sponsors an annual "Research Day" at which time a cash award is given for the best presentation by a member of the house staff.

Henry McCusker, M.D.

Guest Editorial

Graduate Medical Training in a Non-University Hospital

The hospital has in fact become a major educational institution whose teaching disciplines have developed naturally out of the changing needs of patient care. Dean Berry of Harvard has stated "the aim is now on the teaching of students rather than on the teaching of subjects. This accent makes for the best teaching, just as doctors who treat patients rather than diseases practice the best medicine."

Until fairly recently, some educators limited the term "teaching hospitals" to those which were actively engaged in the clinical instruction of medical students. During this earlier period, the majority of residents also received their training in the university hospitals. Immediately after World War II, however, the demands of so many young doctors for residencies in the specialties were far beyond the facilities and resources that the university hospitals could muster, especially since many of them were then concentrating on the expansion of their medical research programs. Consequently, many residencies were approved, or extended, in those nonaffiliated hospitals which had already earned a reputation as being well-oriented in medical education. Since that time, the development of residency

HENRY McCUSKER
Director of
Medical Education
Rhode Island
Hospital

programs in these hospitals has been rapid.

In 1960-61 the nonaffiliated class of hospitals filled 12,752 of the total 28,356 residencies. However, it should be pointed out that the number of non-affiliated hospitals outnumbered the medical school hospitals 972 to 352.

Those non-university hospitals which continued to attract good interns and in sufficient numbers each year, soon developed strong residency programs and in turn, the residents by concentrating on the training of junior members of the house staff made for a more effective internship.

Although there is considerable discussion at this time as to the survival of the internship as we have known it, the future of residencies in general appears bright indeed, due largely to the vigorous efforts of the Council on Medical Education and Hospitals of the American Medical Association, the various American Boards and their Residency Review Committees.

In order to bring their graduate training closer in line with that given in the medical school hospitals, some of the non-university hospitals have accepted the premise that the teaching program in any hospital can only be as strong as the effectiveness of each member of the attending staff as an instructor. Consequently, all new appointments to their teaching staff have been restricted to doctors with known competency to train others in their specialty and the willingness to cooperate fully in the teaching programs. Some of the larger hospitals have appointed full-time or part-time directors of medical education to give leadership to the coordination of the various departmental programs and to their continued improvement. Now that important clinical research has been made available in some of these hospitals, their objective is three-

introducing
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water-soluble salt
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for intravenous use

where parenteral medication is indicated

for treating
urinary tract infections, such as
pyelonephritis, pyelitis, cystitis

for consideration in
systemic bacterial infections

when indicated

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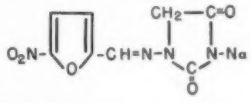
STERILE

For Intravenous Use

ACTIVE INGREDIENT: Each vial contains sufficient material to permit withdrawal of 180 mg. Furadantin, as the sodium salt.

Furadantin Sodium is a synthetic antibacterial agent, one of the antimicrobial nitrofurans, having the following structure:



1-(5-nitrofurfurylideneamino)-hydantoin sodium

INDICATIONS: The antibacterial spectrum of Furadantin encompasses gram-negative organisms such as E. coli, K. pneumoniae and certain strains of Proteus sp., Pseudomonas sp., and Aerobacter sp.; as well as gram-positive organisms such as staphylococci, streptococci, pneumococci, Clostridium sp., B. subtilis.

Furadantin Sodium is indicated in genitourinary infections such as pyelonephritis, pyelitis, cystitis and prostatitis, when the oral form is not feasible. It is also indicated in systemic bacterial infections with the exception of septicemias (bacteremias) unless other therapy has failed or until further work has demonstrated its activity in this condition caused by organisms sensitive in vitro to Furadantin.

In genitourinary tract infections, peroral therapy should replace intravenous when possible. It is not intended to replace surgery when mechanical obstruction or stasis is present.

ADMINISTRATION AND DOSAGE: The crystals must be dissolved just prior to use as follows: Add 15 cc. of 5% Dextrose Injection, U.S.P., or Sterile Water for Injection, U.S.P., to the vial of dry sterile Furadantin Sodium. Empty the syringe forcefully. Shake well to insure complete solution.

FURTHER DILUTION IS REQUIRED
BASED UPON THE PATIENT'S WEIGHT:

Patients weighing over 120 pounds. The recommended dose is 180 mg. of Furadantin in 500 cc. of diluent, twice daily. This is prepared as follows: Withdraw the solution of 180 mg. of Furadantin from the vial and add it to 500 cc. of 5% Dextrose in water, 5% Dextrose in Saline, Normal Saline or 1/6 molar Sodium Lactate intravenous solution. This final solution is to be given by intravenous drip at the usual rate.

Patients weighing under 120 pounds. The recommended dose is 3 mg./lb. of body weight per day divided in two equal doses. This is calculated on the basis that when the Furadantin Sodium in each vial is dissolved in 15 cc. of diluent, each cc. of solution represents 12 mg. of Furadantin. To prepare the final solution, each cc. of the initial Furadantin dilution should be added to a minimum of 33 cc. of parenteral fluid.

CAUTION: In the presence of impairment of renal function or acidosis administer Furadantin Sodium intravenously with caution as with any potent antibacterial agent. If employed under such circumstances the blood pH, CO_2 content or combining power and urea nitrogen or non-protein nitrogen should be followed closely.

The occurrence of a few cases of hemolytic anemia during Furadantin therapy has appeared in the literature.* A small percentage of Negroes and ethnic groups of Mediterranean and Near-Eastern origin has an intrinsic abnormality of the red blood cells. As a result, hemolysis may occur with fava beans and certain drugs, such as primaquine. Thus it is advisable to closely observe such patients receiving Furadantin and to discontinue its administration if there is any indication of this condition developing.

SIDE REACTIONS: If nausea or emesis occur, these may be minimized by slowing the rate of administration, or by decreasing the dosage.

Sensitization occurs rarely in the form of an erythematous, maculopapular cutaneous eruption or urticaria. This is readily controlled by discontinuing treatment.

Occasionally a patient may show minor side reactions such as headache or malaise. No stomatitis, colitis, proctitis, anal pruritus or renal toxicity, have been reported with Furadantin Sodium.

PACKAGING: Sterile 20 cc. vials, containing one adult dose of crystalline sterile Furadantin Sodium (equivalent to 180 mg. of Furadantin).

CAUTION: Federal Law prohibits dispensing without prescription.

NOTE: DO NOT ADMINISTER INTRAMUSCULARLY. DO NOT USE WITHOUT DILUTING. MIX JUST PRIOR TO USE.

*West, M., and Zimmerman, H. H.: Hemolytic Anemia in Patient Receiving Nitrofurantoin (Furadantin), J.A.M.A. 162:637 (Oct. 13) 1956. Kimbro, E. L., Jr.; Sachs, M. F.; and Torbert, J. V. Jr.: Mechanism of Hemolytic Anemia Induced by Nitrofurantoin (Furadantin), Fed. Proc. 16:312 (Mar.) 1957.

EATON LABORATORIES
Division of The Norwich Pharmacal Company
NORWICH, NEW YORK

Dec. 1960

fold: care of the sick, medical education and research.

A comprehensive graduate training in depth is attainable in a non-university teaching hospital that has: a competent teaching staff which functions in a coordinated program; well-organized departments in the clinical, diagnostic, laboratory and ambulatory services; an adequate supply of case material covering a wide range of acute medical problems; procedural methods to ensure each house officer of increasing responsibility for his patients; an educationally oriented board of trustees, administrative directors and hospital staffs; and the financial ability to provide and support the costly needs of progressive graduate education.

"I smell ether."

December 1941:

Secret Mission

. . . On a Sunday morning, just twenty years ago this month, Japanese carrier-based aircraft brought war to the United States, unleashing a surprise bombing attack on Pearl Harbor which killed and injured thousands of U.S. servicemen. The same evening, there began a series of events in which your editor was a participant. Here for the first time is told his story of a secret journey and medical mission to Pearl Harbor, recorded at the time in diary notes.

1. It's a Long Way To Honolulu

December 7, 1941 was a beautiful late fall day in Baltimore, Md. The sun was shining brightly, the sky very blue and studded with fast-moving, snow-white clouds. I had been in my laboratory and on the wards at Hopkins all morning. Eleanor Bliss, Russell Nelson, Gordon Trevett, Frederick Billings, Jr., Barry Wood, Jr. and I were up to our eyes in work on the various experimental and clinical aspects of sulfadiazine, and we were just beginning our investigations on penicillin. It was a

o Pearl Harbor

Perrin H. Long, M.D., F.R.C.P.

busy time, and seven-day weeks were needed to get everything done.

As far as the *welt politik* (as Mencken in those days frequently called it) was concerned, we knew that things were not too good. The Nazi armies had penetrated deep into Russia; Japan was in the process of over-running China, and anyone with an eye on Washington knew that sooner or later we would have to enter the war.

Magic

Negotiations with Japan certainly didn't seem to be going well. But only a select few knew that the "Magic" (the code name for our special code-breaking operation in Washington) had succeeded in breaking the Japanese "*purple*" code and was telling President Roosevelt about the thinking of the Japanese. Among other things, "Magic" reported exactly what the Japanese diplomats were going to say when they met with Secretary Hull, the secret instructions to these delegates, and even gave evidence that the Japanese militarists were up to some great mischief. Roosevelt, Hull and others knew, for example, that unless a favorable reply to Japanese proposals was received from the United States by November 29, negotiations would be broken off by the Japanese envoys in Washington. At the Japanese Embassy the following message from Tokyo arrived on the 29th: "This time we mean it, the deadline absolutely cannot be changed. After that things are going to happen automatically." In other words, the attacking

fleet could not be recalled from its course towards Pearl Harbor.

The very, very sad thing was, that even though "Magic" cried "Be alert! Be alert!" no one paid any attention to or had the perspicacity to know what "Magic" was saying. No one thought the Japanese would make such a bold move as to attack the Hawaiian Islands.

As Foster R. Dulles wrote: "However, the military and naval authorities at Pearl Harbor, and through the chain of command their superiors in this country and the commander-in-chief himself, cannot be absolved of all responsibility for being caught off guard." (*The United States Since 1865,* Pp. 442-43, University of Michigan Press, Ann Arbor, 1959.)

Recently, in a similar vein, the great naval historian, Samuel Eliot Morrison has written: "Kimmel and Short are to be blamed for not scanning the horizon as it were, after the war warning. But they were no more to blame than officers in Washington — especially Admirals Stark and Turner, and Generals Marshall and Gerow. It was the set-up in Washington and at Pearl, not individual stupidity which confused what was going on. No person knew the whole intelligence picture; no one person was responsible for the defense of Pearl Harbor; too many persons assumed that others were taking precautions that they failed to take." (*Saturday Evening Post,* October 28, 1961.)

The news

In Baltimore, on Sunday afternoon, December 7, we sat down to dinner at around one o'clock. Immediately after dinner, my son took off for the movies, my daughter went upstairs, and I dropped into my favorite chair in the living room and turned on the radio. I was listening to some music when the phone rang. I said: "I'll answer!" I got as far as the hall where the telephone was when the radio music broke off and the stupefying announcement of the bombing of Pearl Harbor began. I never knew who was calling on the phone. I have often wondered. I called out to my wife to hurry in from the kitchen and listen to the news announcement and then, like millions of other Americans, we began to telephone to find out if our friends had heard the news, and to weigh the consequences of this attack for ourselves and our country.

Looking back at my notes, I find they evolve as follows, this

being a practically unedited diary account.

"MONDAY, DECEMBER 8: Lew Weed [*Lewis H.—then Chairman, Division of Medical Sciences, National Research Council*] over last night. Says they may send someone to Pearl Harbor to see how well the medical services functioned and the wounded were treated. Asked me if I would be interested. Told him: 'You bet I would!' "

[*Near the end of May 1940, the Surgeons General of the Army and Navy had requested the Division of Medical Sciences of the NRC to set up various advisory medical committees to assist the military medical services in their preparations for a possible war. By 1941, every phase of military medicine was being covered by these committees, the earliest of which was The Committee on Chemotherapeutic and Other Agents of which I was chairman. In the summer of 1941, with the approval of the Surgeon General of the Army, but at my own expense, I visited the majority of station and other Army hospitals from coast to coast, and reported back to the Surgeon General and the NRC on my findings. It was a somewhat costly, but very interesting summer.*]

Let's go . . .

"WEDNESDAY, DECEMBER 10: Took 7:54 a.m. B. & O. to Washington. Weed, Andrus [*E. Cowles*], Larkey [*Sanford V.*] and Crosby [*Edwin I.*] aboard. Met with Frank Meleny, Miss Kurtz, Crosby, Ensign Colin Churchill and McGuire of I.B.M. Discussed a proposed wounds and burns statistical sheet [*At that time we were trying to get a single medical record for all military medical services set up, something which took years to do.*] at the National Academy of Sciences. While at lunch at Hogates, Captain [*later Rear Admiral*] Charles S. Stephenson came to where I was sitting, and whispered, 'Can you go at once to Pearl Harbor?' 'Can I,' I said, 'Let's go right now!' 'Keep your mouth shut,' he said, 'will contact you around 3 p.m.' Then back to NRC to a meeting with Weed, Richards [*A. N. — Chairman, Medical Committee, Office of Scientific Research and Development*], Dochez [*A. R.*], Hastings [*A. Baird*] and Stephenson who left early. A little after 3, Captain Stephenson called me out of the meeting and took me over to Ross McIntyre [*Surgeon General of the Navy*]. At 4 p.m. was told that Dr. Isidore S. Ravdin had also agreed to go and that he

was leaving by air at 4:40 out of Philadelphia. Finally, after getting priorities arranged, I got a place on a flight to L. A. at 7:30 p.m. out of Washington. Then called Mrs. Thomas [*my secretary in Baltimore*] to get hold of Mrs. Long for me."

[*At first the idea was that I would not notify anyone, just drop out of sight—thinking was that 'top secret' by December 10! At least my wife had to know that I would not be home for dinner which we were having with old friends. In a few minutes, Mrs. Long called. Any secretaries who may have listened in heard what was probably the most asinine secret conversation on record:*]

Long: "I won't be home tonight."

Mrs. Long: "Why not?"

Long: "I am going to be away for some time."

Mrs. Long: "But you only have two dollars." [*which was true*] You can't go far on that."

Long: "Well, I will be seeing you."

Mrs. Long: "Take care of yourself and we will all be glad to see you when we next do."

[*That was it. She was calm and encouraging as ever. Weeks later, I learned that from the time I said I wasn't coming home for dinner, my wife knew what was up.*]

We're off . . .

"WEDNESDAY P.M., DECEMBER 10: Admiral McIntyre outlined the mission for us: Ravdin was to report on wounds and burns. I was to assess the effect or lack of effect of sulfonamide therapy. In addition, the Admiral gave us carte blanche to look into any medical phases of the pre-attack, the attack and post-attack periods, including relations with civilian doctors and civilian participation in the care of the wounded.

"Pat [*E. H. Cushing*] loaned me $10, Weed gave me $60. We had dinner at the Occidental. Then to the airport to find flight delayed two hours; broken water heater. Back to Washington for drink with Weed. Saw D. Clough (Abbott) who was much disturbed over priorities on vitamin and sulfa products. Then back to airport. Wired Ravdin in San Francisco about delay.

"Finally got off about 10:15. On board, Major General Herbert A. Dargue; his chief of staff, Colonel Bundy; other members of his staff and his aide, Major McCaffery, a Notre Dame man and a very charming individual; two Franciscan fathers

Where's the arthritic this morning?

Thanks to Medrol Medules, he woke up comfortable and he's already on the go.

The first long-acting oral steroid, Medrol Medules gives the arthritic patient therapeutic action that continues through the night. In many cases, morning stiffness can become a thing of the past.

The slow, steady release of methylprednisolone often provides greater effectiveness, with less frequent administration and sometimes a reduced total daily dosage.

Many of your arthritic patients, too, can wake up comfortable on Medrol Medules.

Dosage: The following dosages are recommended in rheumatoid arthritis:

	Initial	*Maintenance*
Severe	12 to 16 mg.	6 to 12 mg.
Moderately severe	8 to 10 mg.	4 to 8 mg.
Moderate	6 to 8 mg.	2 to 6 mg.
Children	6 to 10 mg.	2 to 8 mg.

With Medrol Medules, it may be possible to reduce the total daily dose by ½.

Indications and effects: Medrol benefits (anti-inflammatory, antiallergic, antirheumatic, antileukemic, antihemolytic) have been demonstrated in acute rheumatic carditis, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

Precautions and contraindications: Because of Medrol's high therapeutic ratio, patients usually experience dramatic relief without developing such possible steroid side effects as gastrointestinal intolerance, weight gain or weight loss, edema, hypertension, acne, or emotional imbalance.

As in all corticotherapy, however, there are certain cautions to be observed. The presence of diabetes, osteoporosis, chronic psychotic reactions, predisposition to thrombophlebitis, hypertension, congestive heart failure, renal insufficiency, or active tuberculosis necessitates careful control in the use of steroids. Like all corticosteroids, Medrol is contraindicated in patients with arrested tuberculosis, peptic ulcer, acute psychoses, Cushing's syndrome, herpes simplex keratitis, vaccinia, or varicella.

Approximately 135 tiny "doses" mean smoother steroid therapy

Medrol* Medules*

Each capsule contains: Medrol (methylprednisolone) 2 mg. or 4 mg. Supplied in bottles of 30 and 100.

Upjohn

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JUNE, 1961

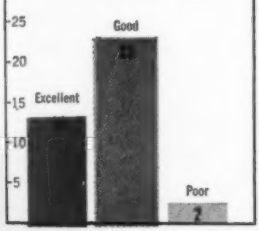

"unusually
effective"[1] in
VERTIGO

TORECAN®

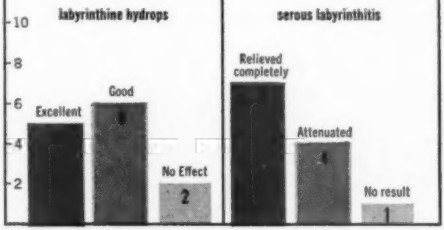
THIETHYLPERAZINE MALEATE

2-ethylmercapto-10-[3′-(1″-methyl-piperazinyl-4″)-propyl-1′] phenothiazine dimaleate

Effect of TORECAN in 39 patients with true vertigo[1]



Effect of TORECAN in 25 patients with vertigo[2]



"This study has shown Torecan to be an effective and well-tolerated preparation in the treatment of vertigo, nausea and vomiting associated with a variety of otolaryngologic disorders. The high degree of efficacy exhibited by Torecan in relieving vertigo was especially noteworthy."[2]

AVERAGE ADULT DOSAGE: **Oral:** 1 tablet (10 mg.) three times daily.
Intramuscular: 10-20 mg. daily.

SUPPLY: TABLETS, 10 mg.
AMPULS, 2 cc. (10 mg.).
Each cc. contains 5 mg. Thiethylperazine Maleate. Inactive ingredients: sodium metabisulfite 0.25 mg., sodium bicarbonate 1.0 mg., propylene glycol 50 mg., water for injection q.s. to 1.0 cc.

PRECAUTIONS: It is obvious that sound clinical judgment must be exercised in determining whether vomiting represents a warning of organic abnormality and that this must first be recognized before employing a potent antiemetic such as Torecan.

Drowsiness and/or dryness of the mouth may occur with doses above 30 mg. daily. While no hepatic, hematopoietic or renal toxicity have been reported at recommended dose levels, it should be remembered that these are reactions which may occur with the phenothiazine group. Orthostatic hypotension may be manifested at higher dose levels. Torecan is contraindicated in severely depressed or comatose states from any cause. In excessive doses, Torecan may produce extrapyramidal stimulation with the varied symptom complex characteristic of this complication. Ampuls are recommended for **intramuscular injection only.**

1. Kearby, N.: Thiethylperazine dimaleate in the treatment of vertigo, presented at Louisiana State Medical Society, New Orleans, May 10, 1961.

2. Rubin, W.: Clinical evaluation of Torecan in the treatment of vertigo, to be published.

SANDOZ

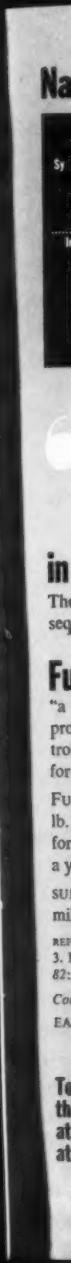
ORIGINAL RESEARCH SERVING THE PHYSICIAN

bound for Phoenix—one had osteomyelitis so I gave him the name of a good man in Phoenix; and a contractor for Federal Traction and Light named Mr. Pearson. To bed [*in a berth, the plane being a DC3 sleeper*] at 11:15.

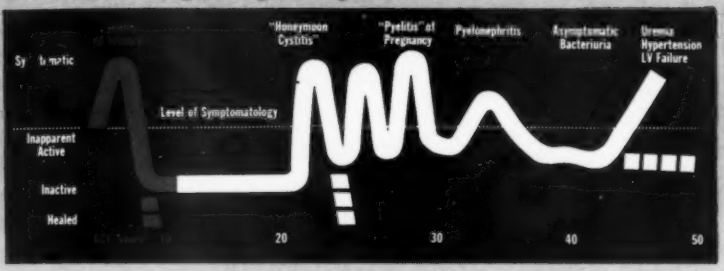
"THURSDAY, DECEMBER 11: Fair night, a little bumpy. Woke up in Memphis where flight was cancelled at 9:30 a.m. because of snow and ice between Memphis and Dallas. Will go out by train to Dallas at seven o'clock. Another delay dammit! To Peabody Hotel in Memphis where American put us up. Called Executive Officer at San Diego Naval Base Hospital and told him of sulfadiazine powder being shipped as an emergency measure to that hospital and asked him to notify McCain (Captain?) of my delay. Wired McCain [*Naval District Medical Officer*] of delay and told him to tell Rav. Wonder if Rav got to San Francisco. Telegram $1.88 —Lunch 90c. Bought small canvas traveling bag, toilet equipment, shirts, pants, etc. $30.13. Met a Captain Marston of the Quartermaster Corps, a nice fellow, on his way to El Paso. Took bath, washed socks, then went down and had beer with Marston. Train left around 7 p.m. A real Arkansas rattler, fourteen places only in diner, did not eat until 10. Net result quite a few drunks; one, an old First Division man, curiously enough now in the Navy, who only likes shooting. At least he said it a hundred times.

Tragic event

"FRIDAY, DECEMBER 12: Arrived almost two hours late in Dallas. To airport and off at 10:30. El Paso at 3:30 p.m. Find General Dargue has sent telegram to March Field ordering plane to meet his party in Phoenix. Plane not going beyond. Set watch back and now am over mountains which are covered with their first snow. General Dargue has cotton plugged in both ears. Rumors going all over plane that we will get through. Spoke to McCaffery about going to S. F. on Dargue's plane. Take it up with him at Phoenix. To Phoenix and maybe to Palm Springs. Probably not Los Angeles. At Phoenix asked Dargue if I could go with his party and I find as I guessed that his plane will go into San Francisco. I suspect he is in as much a hurry to get to somewhere as I am. Quite a headwind. 3:40 p.m. Mountain Time. Can see Douglas



Natural History of Pyelonephritis



"... the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

in early childhood—"a potentially fatal warning sign"[2]

The *best* opportunity to eradicate urinary tract infection (and prevent potentially disastrous sequelae) is the *first* opportunity—in the infant and young child.

Furadantin—for a "cure" instead of a "chronic"

In children "a prophylactic regimen of therapy is indicated. . . . The therapy could be compared to the prophylactic treatment of patients whose exacerbation of a rheumatic fever has been controlled."[3] "Continuous prophylactic therapy with nitrofurantoin, at present, is our best modality for the treatment of chronic urinary tract infection."[4]

FURADANTIN DOSAGE FOR CHILDREN: Average dose is 5 to 8 mg. per Kg. (2.3 to 3.6 mg. per lb.) in 4 divided doses daily. A prophylactic dosage of from 1 to 5 mg. per Kg. is recommended for long-term use.[3] After the infection has been controlled, urinalysis and culture at least twice a year are suggested.[3]

SUPPLIED: Oral Suspension, 25 mg. per 5 cc. tsp., readily miscible with water, infant formulas, milk or fruit juices. Tablets, 50 mg. and 100 mg.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Stevenson, S. S.: J. Louisiana Med. Soc. *110*:219, 1958. 3. Marshall, M., Jr.: J. Kentucky Med. Assoc. *59*:35, 1961. 4. Johnson, S. H., III, and Marshall, M., Jr.: J. Urol. *82*:162, 1959.

Complete information in package insert or on request to the Medical Director.

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, NEW YORK

To cure or control infection throughout the urinary system at every age of life... at every stage of infection

Furadantin®

brand of nitrofurantoin

(Arizona) to the South and Ft. Huachuca about 25 miles also to the South. Looks as grim as it did last summer.

"Arrived Phoenix 4:45 p.m. Plane coming for Dargue who tells me I can go with them if there is room. Hurray!

"Announcement just made that our plane will go into Los Angeles. Dargue said, "Better stay on Doc.' I did. Dargue and his staff staying behind; from the expression on his face looks like he would rather have gone on with us."

[*Somewhere, sometime, months or years later, I ran across this clipping:*

ARMY BOMBER LONG OVERDUE

Washington, D. C. Dec. 18 (U.P.) The War Department announced today that an Army bomber enroute from Phoenix, Ariz., to Hamilton Field, Cal., has been missing since December 12 at 7:15 p.m.

The big plane carried several Army officers, including Maj. Gen. Herbert A. Dargue of the Air Corps.

"The plane was last reported near Palmdale, Cal.," the War Department said.

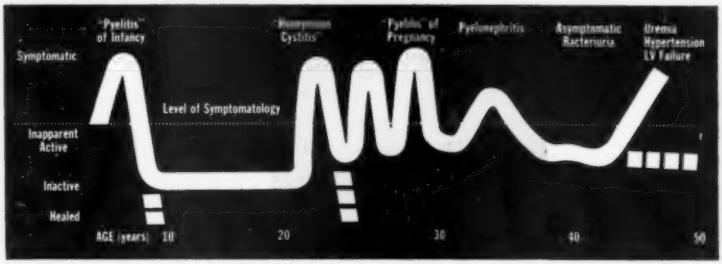
In the spring of 1942, the wrecked plane with the bodies of the crew and of General Dargue and his staff was found on the side of a peak in the Sierra Nevadas.]

"We made L. A. easily. Field blacked out, city ablaze with lights. Followed in from outskirts by searchlights. Lockheed blacked out. Found message telling me to proceed to S. F. at once. Took sleeper from Glendale. Train blacked out. Everything blacked out but L. A. Taxi driver says L. A. people don't take black-outs seriously.

Long wait

"SATURDAY, DECEMBER 13: Rav met me at train. He too had been held up by weather. We went to Naval District Headquarters in Federal Building. Saw a Commander Adam, a very nice fellow, about our transportation, etc. Adam will alert us when weather permits flying. How things are moving here! They are cutting through red tape. Went to buy shoes and more shirts. Back to Empire Hotel to Rav's room. Wrote out reports having to do with surgical infections and mailed them to Pat Cushing to forward. Lunch with Leo Eloesser on Sky Roof. Then a magnificent afternoon at hotel with Rav telling fascinating stories of Denver, DaCosta, and other Philadelphia physicians and surgeons. No word from Adam. Dinner with Eloesser . . . then to Symphony where Pierre Mon-

Natural History of Pyelonephritis



". . . the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

the child-bearing age—a second major stage for urinary tract infection

"The fact that the many cases of chronic and finally, lethal, upper urinary infections in women begin or recur during gestation is especially challenging."[2] "We now believe that all prepartum women should have one quantitative urine culture as part of their medical management."[3]

Furadantin—when pregnancy initiates (or activates) urinary tract infection

In a study of 104 pregnant women with urinary tract infections: "FURADANTIN was highly effective in the treatment of these infections during all stages . . . and frequently offers the best chance of effecting a clinical cure."[4]

FURADANTIN DOSAGE DURING PREGNANCY AND THE PUERPERIUM: The average dose is one 100 mg. tablet 4 times daily, given with meals and with food or milk on retiring, to prevent nausea. For acute, uncomplicated infections, 50 mg. q.i.d. may be administered. If improvement does not occur in 2 or 3 days, increase dosage to 100 mg. q.i.d.

SUPPLIED: Tablets, 50 mg. and 100 mg. Oral Suspension, 25 mg. per 5 cc. tsp.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Benson, R. C., and Mitchell, J. C.: Clin. Obstet. Gynec. *1*:97, 1958. 3. Favour, C. B.: Southern Med. J. *54*:848, 1961. 4. Nesbitt, R. E. L., Jr., and Young, J. E.: Obstet. Gynec. (N. Y.) *10*:89, 1957.

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EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, NEW YORK

To cure or control infection throughout the urinary system at every age of life . . . at every stage of infection

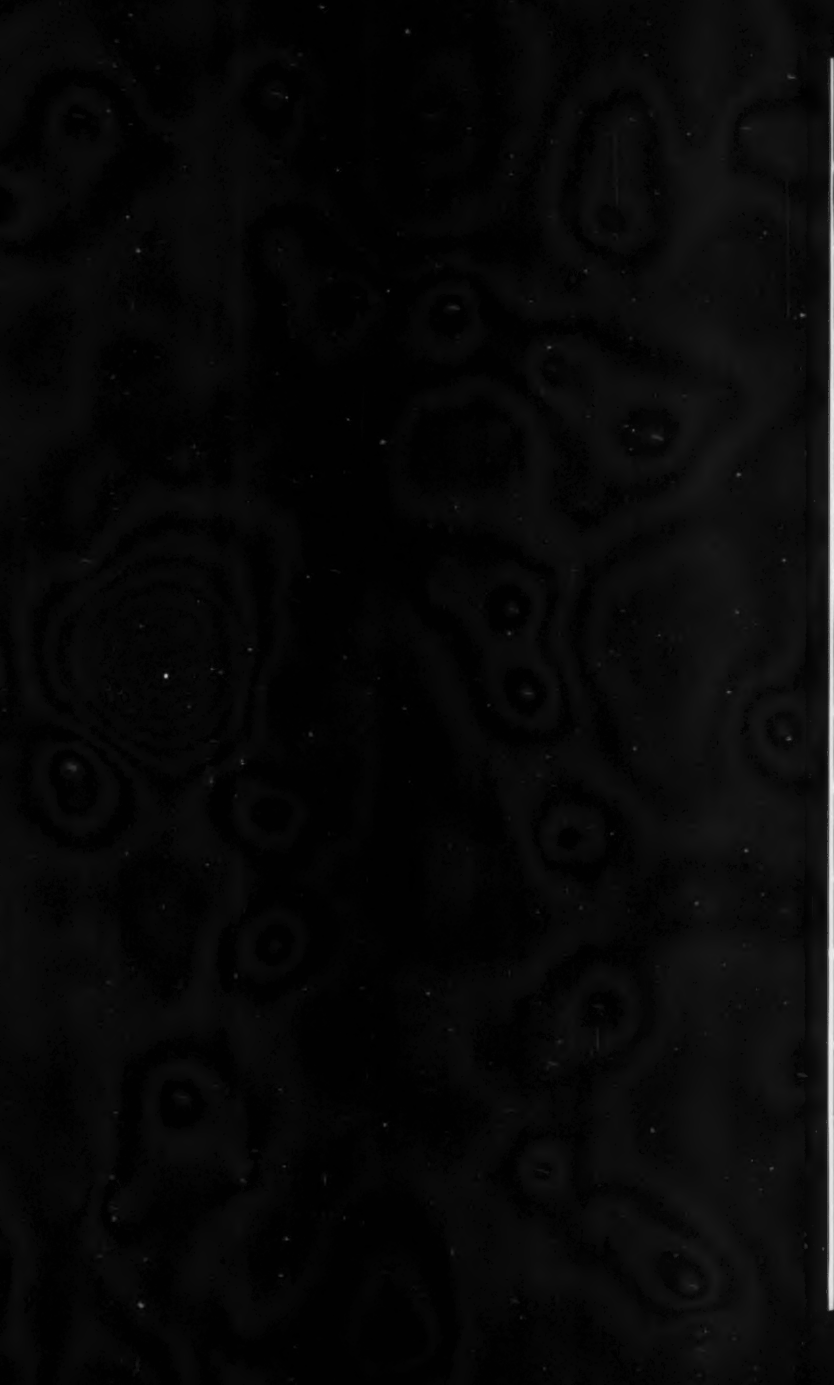
brand of nitrofurantoin

teux conducted Shostakovich's Fifth Symphony. He reminded me of a plump Adolph Meyer. Many soldiers and sailors and college people in audience. Very few black ties—so different from Baltimore. Saw Howard Naffziger [*then Chairman, Department of Surgery at U. C.*] and his family. He invited us to supper on Sunday. Raining cats and dogs. No wonder we can't get off. Back to hotel with Rav and Eloesser and more talk of surgeons in Philadelphia years ago. Truly, it must have been a city of brotherly love in which every man's scalpel was well honed.

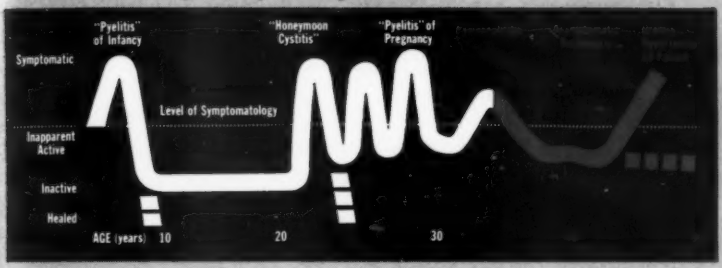
"SUNDAY, DECEMBER 14: Spent morning with 'Rav' in hotel talking about J. B. Murphy, Senn, the two Mayos and the elder Crile. What a fund of information Rav has! At 11:30 a.m. called Adam's office. We are to be sent out at 2:30. Papers had to be made out. While we were waiting, Adam had telephone call demanding a first priority on an air shipment of one hundred baby chicks to Honolulu! Then to Commander Peepul for tickets. Rav rushed back to hotel to pay bills, etc. Call from Adam, trip was off again. Back to hotel to eat sandwiches which Rav had ordered to eat in the taxi on the way down to the Pan Am Clipper. They tasted sour. But again it's raining cats and dogs—plus much fog. Strong SW wind. 3 p.m.: bored; bought an umbrella and went for a walk. Penny arcade. Tried shooting down planes and striking balloons with darts. Rav got a plane and a balloon—seemed to set him up quite a bit. To Naval Transportation Office where we got our tickets. They say it will clear. Then to hotel, with stop to view Russian Art Exhibit on way back. How times have changed. Six months ago the Soviets were bastards; now they are our noble allies! Well if they are killing Germans, I guess we must accept them. But I will never trust them. [*I feel even more sure of this today.*]

"Sat around hotel conning the weather until Leo Eloesser picked us up and took us to his home and showed us more Mexican primitives, and produced some very, very good old bourbon. Then he took us to the Naffzigger family where we had a bang-up dinner, after which we sat around damning nurses for dominating hospitals. Apparently surgeons have much more trouble in this area than do we physicians. I guess we are meek, but I have always thought the surgeons 'inherited the world.'"

—Concluded on page 132



Natural History of Pyelonephritis



"... the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

during the middle and later years—relapse, reinfection, renal failure

"... the physician treating a patient with established chronic urinary tract infection faces a grave problem of management."[2]

Furadantin—to preserve function; to prolong life

"... certain patients with renal insufficiency derived measurable benefit from prolonged nitrofurantoin treatment; as infection was suppressed their renal function improved. This effect was sufficiently pronounced to be considered an important component of the management of uremia accompanying chronic pyelonephritis."[2]

FURADANTIN DOSAGE IN LONG-TERM THERAPY: "With normal renal function, the dosage schedule of 50 mg. four times daily in adults gave urinary nitrofurantoin concentrations that usually exceeded 5 mg. per 100 mg. throughout the day. This level was thought to be sufficient, on the basis of bacterial sensitivity determinations."[3] In refractory cases, 100 mg. q.i.d. daily is recommended.

SUPPLIED: Tablets, 50 mg. and 100 mg. Oral Suspension, 25 mg. per 5 cc. tsp.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Jawetz, E., et al.: A.M.A. Arch. Intern. Med. *100*:549, 1957. 3. Lippman, R. W., et al.: J. Urol. *80*:77, 1958.

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Postponed

"MONDAY, DECEMBER 15: Rain, clouds and wind. Started to clear at 11 a.m. We were told we would get off—so, quickly pack, lunch and then to air terminal. Weighed in, checked baggage and then — thumbs down, trip postponed: Back to hotel where, to our horror and amazement, we heard everyone down to and including the bellboys saying, 'Too bad the Clipper didn't get off.' Could use these fellows in intelligence work. To Federal Building to tell Adam of our bad luck. Found he had tried to notify us of cancellation. He put us to work, I had to interview a girl from Yakima who said she was a nurse and had a job in St. Francis in Honolulu. Finally decided she must be a nurse as she was so dumb. [*I have since changed my opinion about nurses.*] Then to movies to see 'Maltese Falcon.' Spent hour walking in Chinatown. All Japanese stores closed. Then to hotel and bed.

"TUESDAY, DECEMBER 16: My God! How it rained, blew, hailed and stormed during the night! Can well understand why we did not get off. Sat watching rain, wind, etc. with Rav. Both of us itching to get going. About 10:30 . . . blue skies appeared. We went to see Adam. He asked us to go down and check medical supplies scheduled for shipment on our plane. We threw out 747 pounds of plasma thinking it too late to use much of now. All cartons containing medical supplies should have contents clearly marked on the outside.

"Immigration officers asked for our passports, seemed shocked to hear we had none, said we could not get back. Oh hell! Some people in Government don't know yet there's a war on. 4:25 p.m: boarded Clipper Inside furnishings practically stripped out. Got off quickly. Windows blacked out, we were out at sea when covers were removed. Food served, thought it was dinner. Turned out to be tea. Dinner at 7. (Curiously, about 6:30 a bottle appeared from every passenger's pocket and setups promptly came.) Dinner excellent, after which discussed the situation and heard that Maui was being shelled. We will pass over this island in the morning. The talk passed to raising sunken ships at Pearl. We hear it's worse than we know. . . ."

(Concluding part to appear next month)

Resident Fees Rejected

The N.Y. County Medical Society defeated a resolution (318 to 198) last month which would have permitted residents to collect medical insurance fees for their services to patients. The action reversed a stand by the society last May when it voted (141 to 115) to permit patients with medical insurance, but without their own physician, to choose hospital residents to treat them. The defeated plan called for such fees to be turned over to the hospital's board for exclusive use in the residency training program.

PHS Examination

Competitive Examinations for appointment of physicians as Medical Officers in the Regular Corps of the U.S. Public Health Service will be held on February 13, 14, and 15, 1962, at a number of places throughout the United States. Applications must be in the office of the Surgeon General, U.S. Public Health Service (P), Washington 25, D.C., no later than January 5, 1962. Appointments are made in the grades of Assistant Surgeon and Senior Assistant Surgeon. A PHS medical officer with dependents, who has completed internship, receives pay and allowances of nearly $8000 a year. This figure includes rental and subsistence allowances. Active duty as a Public Health Service officer fulfills the Selective Service obligation.

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VIEWPOINT

"I intended this to be a sort of tongue-in-cheek, but true, rebuttal of 'Military Service with a Smile,' by my good friend Dr. Kurt Bochner, May 1961, Resident Physician. The incidents I describe are true, but names (and not the facts) have been changed . . ."

"Things Mother didn't tell me . . .

. . . About the Air Force"

Allan E. Garb, M.D.

A recent article appearing in this publication, by a physician, told of his enjoyable and rewarding two-year tour of duty in the Air Force, and advised overlooking the "minor annoyances which are inevitable in all huge organizations." However, lest there be a mass exodus from the ranks of young physicians in internships or residencies to the call of the wild blue yonder, some of these "minor annoyances" should be scrutinized. I preface the following remarks by unequivocally stating that my two years in the Air Force were the happiest two years of my life. But, oh, there were times when I wondered . . .

Called

Like the time I knew they would be calling me for active duty; and because I had taken a year of postgraduate study in tropical medicine I asked for assignment to a tropical area—and got Iceland.

So I wrote another letter and was reassigned to Arkansas, where my closest brush with tropical medicine was about five thousand cases of pinworm.

And I won't forget that warm

greeting from my overworked colleagues my first day on the base: "Now let me tell you about the Colonel."

The base was beautiful, and working conditions would have been ideal if the converted barracks which we lovingly called the dispensary had not been the *only* non-air-conditioned unit on base.

And the minor supply problems such as the shortages of proctoscopy bulbs never bothered anyone much except the poor unfortunate who was suddenly not visualized at 24 centimeters, and there was no bulb for replacement.

And nobody really minded paying $8 per month to the officers club for dues, but it would have been nice if the officers club were already built.

And I'll never know why the Colonel got so mad when he discovered my voluntary contribution to the Red Feather charity campaign in a sealed envelope contained $5 instead of the customary, "voluntary," required $8.

But I did learn how to grow grass and cut it so that all the blades were exactly three inches tall; and the base commander was very nice and gave you at least two warnings before he threw you off base for allowing your grass to reach an incredible height of four inches. However, that seven-foot hole in the ground behind your house wasn't in full view, so I guess it didn't need a fence around it, because there were always extra kids.

And it really was thrilling to see how the military populace clamored for our medical services. There was always a variety of chief complaints like: "my meprobamate tastes funny lately," or "why won't you give me some

more Dexamyl, Daddy-o?" or "my neighbor's vitamins give me gas."

Syndromes

And new syndromes galore came to the fore. One consisted of nausea, weakness, headache, and screaming, and was called "The English-wives–in–Arkansas" Syndrome. Another, found in females with large families, consisted of claustrophobia, insomnia, bruised foreheads, and anorexia nervosa, and this we called the "four-children-in-one-trailer" syndrome. I suggested via channels that the way to ease the patient overload was to charge everyone twenty-five cents per dispensary visit. Unsocialized I was shouted, nay, trampled down.

Though overworked, we were soon to be relieved by the arrival of two new physicians. One had been stationed in Japan and needed six more months to complete his two-year tour. Because of longevity in rank, he became chief of the flight surgeons' office and then wandered off to the golfing green, where he spent his remaining six months and was not heard from again. Because we performed no surgery in the dispensary, the other physician, a board eligible surgeon, took over the pediatrics department.

The monthly PFR or physical training test was another gem undoubtedly contrived by the enemy to discourage peak efficiency (which would be devastating in any huge organization) and to increase the sick call statistics. The test was designed to disable any normal athlete for three working days, and next to the required flu vaccine, caused more layoffs than any single illness.

The bill

The final heartwarming touch occurred our last day in the Air Force. When we left our Capehart base housing, a one-inch square piece of paint was peeled off the kitchen wall where a small plastic hook had been. So they thoughtfully repainted the entire kitchen and, to save the taxpayer, gave the bill to me.

I have avoided mention of the finer aspects of Air Force life, since these are well known to everyone and have been well described before.

But don't get me wrong, I loved my two years.

And I'm very happy to be a civilian.

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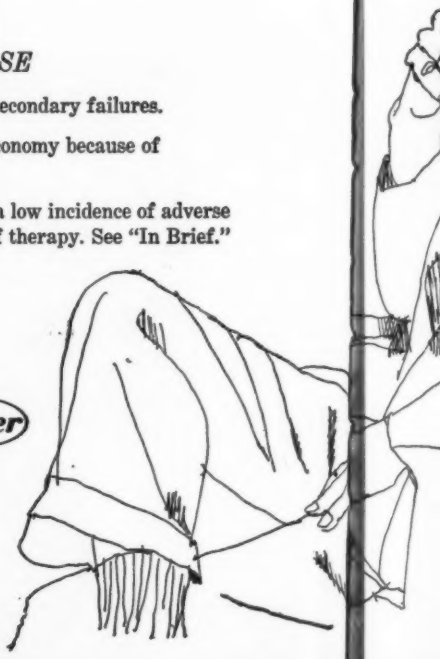
at presently recommended dosage has a low incidence of adverse effects which require discontinuance of therapy. See "In Brief."



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HOUSE STAFF FUNCTION IN *Private Cases*

The decline of service patients has brought an increased need to utilize private patients in house staff teaching. Cooperation on the part of private physicians is a prerequisite to the success of such a program.

Paul A. April, M.D.

My first experience in the care of private patients came after graduation from medical school when I entered a straight medical internship at the Buffalo General Hospital. These remarks will pertain largely to the medical services with which I have had experience and will apply less to the surgical and other specialties.

In medical school my entire patient experience was with "service" patients seen on the wards and clinics of New York's Bellevue Hospital and with non-private patients in other hospitals affiliated with the medical school. There seemed to be no shortage then (1954) of ward and clinic patients; all services of the hospital through which I passed seemed fairly busy.

Since then, however, even a municipal hospital such as Bellevue has had periods of a lower than usual bed census. In the Buffalo General Hospital, relatively few patients present themselves to the ward service since most have some kind of total or partial prepaid medical insurance. This is in sharp contrast to the number of patients seen in previous years who were entirely dependent upon public agencies to pay their medical costs.

In our voluntary hospital there are ward, private, and semi-private accommodations. These divisions are largely geographic and not *necessarily* related to the patient's financial status.

The ward patient population is composed of insured patients and patients dependent upon public assistance. Insured patients on the ward service may have private physicians who have referred them to the service and who maintain liaison with the ward service.

Here then exists an essentially artificial retention of a ward type service to suit the needs of a medical school teaching hospital. In our hospital, by a rule generally observed, the insured patient referred to the medical service by his private physician—who may or may not be on our attending or courtesy staffs—is cared for by the physicians on the ward service.

On occasion, friction develops when an attending physician who has referred a patient to the ward service attempts to circumvent the rules and proceeds to manage this patient as though the patient were on the private service. For the most part, however, each patient on the ward service is handled by those assigned to the ward service. The referring physician is an interested bystander whose views will be sought and heard, but not *necessarily* adopted. Referring physicians with special skills of value in a particular case will find their suggestions and requests transcribed onto the order sheet. In essence then, the ward service usually manages the diagnostic workup and treatment of patients residing on the ward.

The above procedure is one method of preventing the possible extinction of the ward service and the traditions that go with it. Nothing, however, is likely to prevent the addition of new non-ward beds to hospitals—so that as bed capacity increases the proportion of ward beds decreases.

Attending physician's role

As the non-ward bed capacity grows the house staff will become larger and provision must be made for the use of these private and semi-private patients in the hospital's educational program. The private service then must consider itself part of the hospital's educational system at the same time it benefits from the house officer's efforts in terms of patient care.

The function of the attending physician on the ward service is different from that of the private

physician caring for a patient in one of the private or semi-private beds. Actually a physician may assume both roles in the same day if he is in charge of a ward service and is responsible for private patients elsewhere in the hospital.

The difference is not in the physician, but in the part he plays in each situation. On the ward his function is to supervise patient care as administered by the house officer. He guides and suggests, permitting the medical growth of the house officers under him while seeing that the patient's best interests are served. Generally house officers are permitted to exercise their judgment and have considerable latitude in the management of the medical problems of patients assigned to the ward.

All attending physicians assigned to the ward are not men of equal ability. Perhaps this is unavoidable. However, it is in the best interests of the teaching program and of the patients to assign to the ward only those attending physicians who are superior in their fields and who have the desire and aptitude for teaching. In any case, the conservatism likely to be manifested by even the plodding but interested attending physician will often balance some the more rash judgments of young house officers.

There is no answer I can see to the plea that only the best physicians and teachers be assigned as ward attendings. House officers must learn to work under all conditions, rejoicing when a truly superior person is on hand to guide and teach.

The attending physician, when caring for his patients on the private service, is in direct charge at all times; all orders written on the chart of his patient must be with his consent. On the ward service only the initial outline of treatment and diagnostic procedures need meet with the approval of the ward attending physician, and individual tests and medications are ordered under the direction of the resident.

Resident's role

Of foremost importance to the ward resident is the privilege of initiating diagnostic procedures and treatment of patients under his care. Although his work will usually meet with the approval of the ward attending physician, the resident will feel, and indeed is entitled to feel, that he is "running the show." He asks for advice when he needs it, but he is also protected and guided when a capable attending physician

offers his suggestions at daily rounds.

Consultation is thus readily available through the next step in the chain of command as well as through other specialty services which provide consultation when so requested.

The resident on the ward service is also responsible for the instruction of the interns who serve under him and the medical students assigned to the service. This may be on a formal or informal basis, but it should be an integral part of the resident's function in addition to patient care.

The resident on the private service finds himself in a much different position. A portion of the duties and responsibilities assigned to him on the wards are assumed by the private physician. In substance, the resident who has been in charge of the ward (under the supervision of the attending) now takes a back seat. If the resident has a larger number of patients assigned to him than the intern, he will perhaps find that he has been lost in the shuffle and that it is the intern who has closest contact with the patient and the private attending physician.

How can the resident best utilize this time on the private service to further his medical education? If he has a large number of patients assigned to him and if he is relieved of routine procedures which the intern performs, he will find that the wealth of patient material on the service is available to him. He may then select those patients who present problems of interest to him and follow the course of these patients. He should have sufficient time to read extensively in connection with the patients he sees and to investigate some fields of special interest to him.

Instruction

The resident is responsible for the instruction of the interns assigned under him, and daily rounds provide an opportunity to exercise the role of instructor and supervisor.

In addition, the resident may establish his own contact with the private physician in the same fashion as does the intern. He may then find he has the private physician's approval to outline and pursue a diagnostic and therapeutic program for the private patient.

The main difference, as I see it, for the resident on the private and ward service is that on the private service the resident, for the most part, is not actually

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1. Batterman, R. C.; Grossman, A. J.; Mountieff, G. J., and Leifer, P.: A Clinical Re-evaluation of Daytime Sedatives, Scientific Exhibit, Annual AMA Meeting, San Francisco, Cal., June 23-27, 1958.

needed. This may injure the resident's pride, but it need not stand in the way of his utilizing the private service as a profitable educational experience.

Again, don't forget that I am speaking largely of a medical service. On a surgical service the resident must develop operating skill as well as academic background. There is a great deal of controversy in this area and I do not feel qualified to express an opinion regarding the proper solution to the problem. I suspect that, on the whole, things are more satisfactory for the medical resident on a private service than for his surgical counterpart.

Intern's role

For the intern there is no great difference between ward and private service. On the ward he is under the supervision of the resident; on the private service he is responsible to the private physician. Although the ward resident may delegate more responsibility to the intern than does the physician in charge of the private patient, the intern is still under the watchful eye of someone.

One of the private physician's practices which is most objected to is that of writing orders on a patient's chart before discussing the case with the intern. Another bad practice is to send the initial orders with the patient to the hospital. Though no one will object to this in acute emergencies when the private physician has seen the patient prior to hospitalization, some physicians follow this practice without reason. Others never do so. An educational campaign on the part of the person responsible for house staff education directed at the private physician may be able to limit the practice.

The alert intern will contact the private physician as soon as he has completed his initial examination and formed an impression. He may then make suggestions as to management which the private physician will usually receive in good grace.

If the intern's suggestions and evaluation seem reasonable to the private physician he may be allowed to put them into effect under the private physician's supervision. The intern may even suggest diagnoses or therapeutic measures not considered by the attending physician—and if these have merit they too may be acted upon. If events follow this line the intern is made a participant in the management of the patient and develops confidence in his ability as a physician.

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There are, however, private physicians who will veto all suggestions made by an intern. In general, they regard him as a nuisance to be tolerated only because of his ability to relieve the private physician of "scut" of various types and because he is available at all hours and so frequently obviates the need for a hospital visit by the private physician. Fortunately, this type of private physician is in the minority.

If the intern makes himself available to the private physicians, he will usually find that they will welcome his assistance in the management of their cases. Those that won't cooperate in this way are few and, in my experience, one loses little by lack of contact with them.

Should things go wrong in a case from which the intern's participation has been excluded, then the intern may observe and learn from errors that may have been made. Although this is not as satisfactory as active participation, there is always something to learn from every case.

The intern should also be wary of the private physician who accepts and acts upon all suggestions indiscriminately. This is another form of "shotgun" diagnosis and treatment which is only likely to fill the order and laboratory report sheets on the chart.

I have noted before that the quality of ward attending physicians varies and that these are frequently the same physicians caring for private patients. It is remarkable how quickly a new group of interns will appraise, and usually correctly, the abilities of the various attending men. In choosing physicians for themselves and their families, it is interesting to note that the same men are chosen by each new group.

On the private service the number of attending men is great enough so that one does not suffer unduly from a few inept private physicians. On the ward, the attending physician remains for his entire tenure and if one is dissatisfied with him there is no recourse.

Of course, often one may initially misjudge a physician who on further observation may warrant a higher regard. The world of private practice, as seen in a medical school affiliated hospital, is far from being heavily populated by dolts and dullards.

In short, then, the intern has the private service thrust upon him. He will have to work hard —and in order to derive the maximum learning experience he should utilize every opportunity to consult with his attendings, especially in those cases where they neglect to come to him. He should try to be available to them when they make their rounds at varying times of the day but if this is not possible, he need only pick up the telephone to reach them at home or office.

Private patient's attitude

Do private patients resent having house officers query and examine them? I think all of us who have served on private services have encountered the patient who tells us that Dr. ——— has already examined him and questions the need for a repeat examination. This is rare, however, and is usually countered by replying that this examination is a routine hospital procedure. Other explanations emphasizing the value of examination for purposes of comparison among physicians and for help in future evaluation as the patient's condition may be helpful. Rarely will a patient protest so vehemently that it will be necessary for the house officer to forego the initial work-up.

Occasionally the private physician acquiesces to known or fancied demands of his patient and directs the house officer not to examine a certain patient. There is usually no malice in such

a demand although it does seem at odds with the principles and practices of a teaching hospital.

Another place, however, which lack of examination by the house officer may be to the detriment of the patient is in the routine prohibition of pelvic examinations by house officers on female private patients. This is an anachronism and may be responsible for overlooking early, still remediable, malignant disease.

If all female private patients received pelvic examinations only by their attending physicians or by others delegated to do this either in a private office or in the hospital, such a situation would operate only to the detriment of the house officer who is thus prevented from acquiring experience in examining these areas. However, often no one does such an examination and the patient may be the loser as well.

In general, private patients expect to be examined by the house officer and, sometimes, when the examination is delayed by the press of business elsewhere they will feel neglected until the house officer appears on the scene. Most patients welcome the assistance afforded them by the attentions of the house officer. Exceptions are rare.

I believe that private patients could learn to accept pelvic examinations, too, as part of the routine work-up. Physicians caring for these patients should encourage this attitude rather than categorically prohibit such examinations. Most house officers, I think, feel this way even in regard to the female members of their own families.

Ward vs. private patients

Besides the differences in function of the physicians responsible for care of patients on the ward and private services there are differences in the type of patient and the circumstances of admission.

Ward patients who are not referred by private physicians are admitted from the Emergency Room or from the Outpatient Department. In nearly every case hospitalization is *necessary* either for treatment or for diagnosis. These patients are usually admitted during daylight hours on week days if they do not represent emergency problems, or at any hour of any day or night of the week if they are emergencies.

Patients on the private service and those patients on the ward referred by physicians on the attending or courtesy staffs show somewhat more variation in their

time of admission. Although there has been an effort by the hospital administration to have all non-emergency cases admitted before 3 PM, it has been only partly successful. Patients tend to arrive when it is convenient for their families to escort them to the hospital.

Sometimes a private physician will refer a patient to the hospital who has not recently been seen or evaluated. The house officer, after his examination, may wonder why the patient has been admitted. Occasionally the private physician will offer the explanation that the patient's status seemed worse than it turned out to be. However, some private physicians will admit patients to the hospital whose diagnostic examinations and therapy could easily have been carried out at home or office. This is a matter of controversy familiar to all house officers. It may be more of a problem on medical than on the surgical services.

The patient in the ward who is referred from the O.P.D. or Emergency Room is more likely to be older and suffering from chronic as well as acute disease than is the patient on the ward who is referred by a private physician, or the patient who is on the private service. He is likely

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to be dependent for all or part of his income upon public welfare agencies and his educational level and understanding of his disease are also likely to be lower. Above all, he is dependent upon the ward physicians for referral to other medical or social service facilities so that his care may be continued after he is discharged from the hospital. He is almost always sick enough to require hospitalization at the time of his admission.

The private patient on the private service as well as ward patients referred by private physicians may or may not be sick enough to require hospitalization at the time of admission. The private physician may have the privilege of referring his own patients for hospitalization on the ward when ward beds are available. This is one of the compromises adopted to preserve the ward service. Frequently the ward physicians may find these patients of interest although they may not represent acute problems.

Unnecessary hospitalization

Many house officers are irritated over the admission to the hospital by private physicians of patients whose *sole* reason for admission is to obtain diagnostic studies or the services of consultants. Such services can be charged to the patient's hospital insurance; patient himself would have had to pay had these been obtained outside the hospital. Certain diagnostic procedures require hospitalization, but many such as G.I. series do not. Individual instances of this are difficult to pin down because of the differences in judgment or opinions of individual physicians.

Parenthetically, it may be noted that Blue Cross has felt it necessary to request a number of premium increases. Part of this may be due to higher charges made by hospitals for their services, but I believe that a good proportion of these costs comes from the unnecessary hospitalization of private patients.

I do not mean to picture the privately admitted patients as a group of non-interesting, routine diagnostic cases who are not sick. While it is true that there seem to be more patients on the private service whose hospitalization is related to complaints that are essentially neurotic, patients admitted by private physicians are often very sick. They frequently present symptoms of obscure but definitely organic disease and they frequently benefit from the house officer's attentions. I have seen as many in-

teresting patients on the private service as on the ward service.

Are not the neurotic patients, too, sick? They are, although they seem to benefit in only a small way from the diagnostic x-rays, anticholinergics, tranquilizers, analgesics, laxatives, enemas, bedtime sedation and the host of other remedies utilized. They are sick, but I'm afraid that some house officers frequently neglect them because they come to us at a time when we are interested in observing organic disease and we resent their demands upon our time. Often, the attending physician, too, finds them a burden and is hard pressed to find an effective therapy.

Equal medical care

Does the medical care of the ward patient differ from that offered on the private service? It is traditional that a poor man on the ward of a teaching hospital will receive care equal to that given to the wealthiest man in the community who may find himself on the private service of the same hospital. This tradition is still very much in effect.

Individual medical care on the ward service will depend primarily upon the quality of the ward resident. He is the physician who at the same time has the most intimate knowledge of the patient and sufficient medical background to interpret what he learns and to formulate a plan of diagnosis and treatment. The intern is to be more than a "scut boy" but he is under the direction of the resident.

The ward attending physician should guide the study and treatment of the patient, but he needs the intern and the resident to help keep him informed so that he may bring his experience to bear on the problems at hand. He will keep abreast of things also by his own rounds.

The quality of the ward attending physician directly influences the type of educational experience received by the house officers under him, and the care received by the patients in his charge. He should be the finest type of physician available. In general the level of medical care afforded any patient on the ward is the highest possible.

Frequently, a patient on the ward receives an extensive diagnostic workup. This depends upon the intellectual curiosity of the ward physicians as well as upon the needs dictated by the private physician.

The charge is often leveled that the ward physicians waste

money by requesting unnecessary and expensive diagnostic procedures. Undoubtedly this is true in some instances. However, the results of any *well conceived* series of tests serves only to enrich the medical background and skill of the physician who orders them with a particular purpose and who is familiar enough with their meaning to evaluate them accurately. This falls under the heading of "medical education" and is to be expected in a teaching hospital.

I believe that in a well staffed hospital the quality of care on the ward and private services are about equal. The lines of authority may differ in the two areas but the individuals are generally the same and may be expected to perform in the same manner in both places.

However, there is less likely to be, on the private service, the extensive diagnostic workup (provided that this was not the original reason for admission) to satisfy intellectual curiosity. Unless the private physician is especially interested in a certain disease entity, he is more likely to be concerned with alleviating distress. Usually this serves the patient well. Occasionally it forestalls proper treatment directed at the true, but undiscovered etiology of a disease process. This may happen on the ward too.

Policy for discharge

In general, ward patients are discharged when such is therapeutically indicated, when diagnostic workups requiring hospitalization are completed, or when required housing for the patient is available.

Private patients usually are discharged according to the same formula, but there is a widespread practice of holding the patient until it is convenient (not merely possible) for some member of his family to escort him home. This may mean a three-day increase in the hospital stay of a patient who does not require the bed.

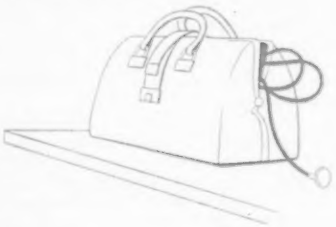
Most of these patients have hospital insurance and this source pays the increased cost which would have been eliminated had the patient provided for his own transportation home when he was medically able to leave the hospital. It is easy to see how this situation would tie up hospital beds and on occasion prevent admission of seriously ill patients.

This situation also leads to large numbers of discharges on Saturday morning and many admissions on Saturday afternoon and Sunday when the hospital

may not have a full staff. There may be more admissions on the weekend than during the week. My hospital, at present, is campaigning for the discharging of patients when medically indicated. We hope this campaign will be successful.

Private teaching rounds

For the private service to contribute fully to the educational program of the hospital, private patients must be used regularly as the object of rounds or other group teaching sessions. At our hospital on the medical service, we have regularly scheduled "private teaching rounds" at which the case histories of private patients are presented to the group of house officers currently assigned to the private service. These sessions are conducted by a group of attending physicians who are assigned to this program and who rotate in turn. After the case history, the group examines the patient and then discusses the case.



These patients are almost always patients of physicians other than the man conducting the rounds, and permission for the use of the patient for teaching rounds and his record must be obtained prior to the rounds from the patient's personal physician. Such permission is usually granted.

Cases are selected by the resident with an eye toward interesting disease entities which fit into any special abilities or interests of the physician conducting rounds that day. Sometimes the physician in charge of rounds will wish to present an interesting patient of his own who is in the hospital or who may be from his private practice and not hospitalized.

The quality of rounds varies with the type of case, the quality of the house officer's presentation and the thoroughness with which the case has been studied. The most important factors, however, are the degree of interest, ability and amount of preparation of the private physician responsible for rounds that day. This is not a matter of his spoon feeding facts to the house officers, but of the degree to which he provides intellectual stimulation.

Some of these rounds are excellent and others are less so. ▶

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1. Cornely, D.A., and Ritter, J. A.: N-acetyl-p-aminophenol (Tylenol Elixir) as a Pediatric Antipyretic-Analgesic. J. A. M. A. 160:1219-1221 (April 7) 1956.
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Each of them represents an advance in the use of private patients for teaching purposes and their continuation should be encouraged. In time much of the teaching program of voluntary hospitals may depend on such sessions.

Private patients are also used in "grand" rounds at which the entire house staff may be present along with medical students, private and full-time attending physicians, visitors, and "visiting firemen."

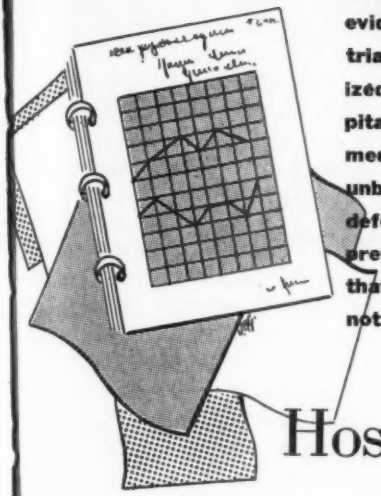
In my experiences, private patients rarely object to being the object of a group teaching session. Most patients enjoy a break in hospital routine if they are physically up to it. There are rarely any complaints; some patients will even travel good distances to be present at a group teaching exercise where they and their disease are to be presented.

Research projects

Private patients may also be used as part of various research projects in which private physicians or full time attending physicians may be engaged. This research is in various fields, but to my knowledge, does not include the use of drugs that have not been previously proven acceptable for human use. House officers, too, have access to patients' records for purposes of studying any disease entity in which they may be interested and as a corrollary to culling the literature on any particular subject. House officers are actively encouraged to do this.

We need the private patient to provide training for house officers. In the future, if employment levels do not markedly decline, this need will become greater. The primary factors affecting house staff education and quality of patient care have little to do with the patient being a ward or a private patient. The important thing is the quality of the physicians caring for him—and the extent of the cooperation maintained among these physicians.

Excellent opportunities for learning are found on the private service as on the ward. Full utilization of these opportunities is all that is required.



Hospital records are introduced into evidence in many personal injury trials. If the plaintiff was hospitalized following the accident, the hospital records may provide detailed medical proof of injuries recorded by unbiased hospital personnel. The defense may introduce records of previous hospitalizations to show that the plaintiff's disabilities did not result from the present accident.

Hospital Records as Evidence in Court

Albert Fields, M.D.
Elmer Low, LL.B.

Unlike office records or x-ray films, hospital records may be taken to the jury room and be examined by the jurors. It is essential for the physician called to testify in court to study carefully the hospital records as a check on his own testimony and to avoid possible impeachment at trial. The attorney who has mastered this effective tool will make certain that the hospital records have been subpoenaed, brought to court, authenticated, marked in evidence and read from.

Everything contained in a hospital record is hearsay, and hearsay statements are not normally receivable in evidence. (Reason: there is no opportunity to cross-

examine under oath the sources of the information.) Errors might have been made, diagnoses might have been incorrect, and x-ray readings might have been faulty. Yet, the record, insofar as it pertains to matters of diagnosis and treatment, may be admitted into evidence. This is an exception to the hearsay rule. The exception existed at common law and has become embodied in statutory law. The rationale is that greater good can be accomplished by their admission than by their rejection. Besides, there is no motive to falsify—the motive is to cure.

All records made in the regular course of business come within the exception to the hearsay rule. The Uniform Business Records as Evidence Act, which has been adopted by the majority of states,* provides as follows:

"A record of an act, condition or event shall insofar as relevant be competent evidence if the custodian or otherwise qualified witness testifies as to its identity and the mode of its preparation and if it was made in the regular course of business at or near the time of the act, condition or event, and if in the opinion of the court the sources of information, method and time of preparation were such as to justify its admission."

Medical relevance

The construction of the rule has been to admit the history contained in such records, if the history can be considered as an aid to diagnosis and treatment of the patient's condition. Thus, the statement "drinks a quart of whiskey a day" would be admissible. If the history relates to matters outside the medical field and is relevant only to the negligence issues, it will either be (a) a self-serving statement, or (b) an admission against interest.† If self-serving, it will be disregarded. Example: "I was struck by an intoxicated motorist." However, if it satisfied the legal requirements of an admission, it will be received in evidence. Example: "I was outside the crosswalk when I was struck." If the plaintiff denies he made such statement, the opposing party must produce as a witness, the one to whom such a statement was supposed to have been made. Such

* In California, C.C.P., Secs. 1953-e to 1953-h: in New York, C.P.A., Sec. 374 (a); in Pennsylvania, 28 P.S., Secs. 91a to 91d.

† A physician may testify to a plaintiff's admission against interest. Williams v. Alexander, 309, New York 283,288,129 N.E. (2) 417,419 (1955).

statement should be excised from the rest of the hospital record that is received in evidence.

One of the leading cases on the subject is that of *Brown v. St. Paul City Ry. Co.,* [(1954) 62 N.W. (2) 688, 241 Minn. 15, 44 A.L.R. (2) 535], which states that hearsay and self-serving statements contained in hospital records are not admissible when offered by the injured person to prove how the injury occurred, even if such information were desired by the doctor for the purpose of diagnosis and treatment.

In the case of *Allen v. St. Louis Public Service Co.,* [(1956) 285 S.W. (2) 663], the court states that "those parts of the patient's history inherently necessary (or at least helpful) to the observation, diagnosis and treatment of the patient" are admissible.

It is said in the case of *Green v. City of Cleveland* [(1948) 79 N.E. (2) 676, affd. 83 N.E. (2) 63, 150 Ohio St. 441], as follows:

"That part of the hospital record which purported to explain how the accident happened, being outside the knowledge or observation of those authorized to create the record of the patient's physical condition and treatment in the regular course of the business of the hospital, was not admissible merely because the statement was written into the hospital report."

Obtaining the records

In many cases, hospital records are seen for the first time by both physician and attorney at the trial, when they are produced in response to a subpoena. The attorney can usually arrange to examine the hospital records in advance of trial, when permission is given by the patient and the attending physician. Counsel may arrange to photostat the records; some hospitals will do this for a small fee. This will enable the attorney to carefully study the records in advance of the trial. The prospective medical witness should also study these records and explain to the attorney significant abbreviations, symbols, tests and other technical items.

Formerly, the introduction of hospital records into evidence required the presence of the record librarian or other hospital representative to testify that these records were made and kept in the usual course of business in the hospital in the treatment of patients. Nowadays, the opposing attorneys usually agree that all parts of the hospital record be marked in evidence and read from. In many cases, the attorney for either party may find it

STANDARDIZATION OF HOSPITAL RECORDS

Some standardization of the form and contents of hospital records has been established through the efforts of the American Medical Association, the American Hospital Association and the American College of Surgeons. The Manual of Hospital Standardization prescribes that an approved system of hospital records should contain the following sections:

- *Identification*
- *Summary (Final Diagnosis, Treatments and Complications)*
- *Admission Note*
- *History (Present, Past, Personal, Family)*
- *Physical Examination*
- *Progress Notes*
- *Anesthesia Record*
- *Operative Record*
- *Pathology Report*
- *Laboratory Tests*
- *X-ray Studies Reports*
- *Hypnotic Sheet*
- *Narcotic Sheet*
- *Order Sheet*
- *Graphic Record (Temp., Pulse, Resp., BP, Fluid Intake, etc.)*
- *Nurses' Notes*

advisable to present some physician from the hospital rather than merely the records. The use of original records rather than photostats is discussed elsewhere.

Identification

A card or sheet filed in the admitting office contains certain identifying information obtained from the patient, a relative or other source. This information, recorded by a clerk, lists the patient's full name, home address, phone number, occupation, date and place of birth and year of arrival in city. Also recorded are name, address, phone number of employer, nearest relative and insurance carrier, and date and time of admission to hospital, number of assigned room, and names of attending physician and intern. Some records also include religion, name and place of birth of father and mother, social security number and whether or not the patient had military service.

Admission sheet and history

The all-important history of the accident is usually presented on the admission sheet and history. The history as obtained from the patient or others is significant to the physician only as an aid to his diagnosis and treatment. Too often the admitting

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physician becomes unnecessarily involved in the liability aspects of the history. There may be a notation that the patient did not see the car that struck him. This statement was not made by the injured party but by the driver of the other car or some other interested party. Information is often obtained second-hand through a nurse or orderly and is carelessly entered in the records by the intern or resident without noting the source. Months later the attending physician who signed this record is subpoenaed as a witness. In good faith, he may testify that since the sheet contains his signature, the patient must have made such a statement to him. This could cause the patient to lose the case.

One patient at trial claimed loss of wages after the accident. The admission record revealed that he had been unemployed at the time. In one case, retrograde amnesia was alleged to account for the inability of the patient to remember the facts of the accident. This was contradicted by the hospital records giving a clear account of the patient's statements as to events prior to, during, and after the accident, without any reference to loss of consciousness.

Existing injury

It is important that the admission history should record preexisting injury, disease or disability, as well as all subjective complaints and objective findings. Definite entries, particularly in head, neck, back, and shoulder injuries, should be made by the first examining physician as to the manner of injury, duration of coma, or "stunning," location of head pains, eye and ear complaints. Were there any complaints as to extremity numbness, altered sensations or weakness? Around which joints and muscles did he complain of stiffness, spasm, tenderness or pain on movements? Entry should be made as to such complaints prior to the present accident.

It is sometimes difficult to explain inconsistencies between the admission history and that given by the patient at a later date. Patients are more inclined to be accurate on admission to a hospital than in the attorney's office. Convulsive seizures may be at-

tributed to an accident when the admission record reveals that the patient gave a history of long-standing epilepsy. Similarly, it has been claimed that headaches and dizziness are due to an accident, when the records show that the patient is a hypertensive and has been on antihypertensive medications for these very complaints. Astute attorneys will not try to cover up these existing conditions but, when indicated, will attempt to show aggravation of symptoms as a result of the accident.

Physical examination

The importance of a good examination, with careful and specific description of all abnormalities, including those that existed prior to the accident, must be recognized by all physicians. The exact location, extent and nature of all injuries should be described. Even "minor" changes in pupils, reflexes, etc., should be noted.

Order sheet

The severity of pain and other disabilities are usually indicated by the prescribed narcotics, analgesics, muscle relaxants and other medications, by orders for heat, or cold, applications, traction devices and so on. Special tests requested may also be informative. If the order sheet shows an antihypertensive medication, headaches claimed as resulting from an accident may in fact be due to pre-existing hypertension.

Progress notes

During the course of the patient's stay in the hospital, a specific statement should be written into the daily record. During a critical illness, such notes are made every few hours. When convalescence begins, the notations are made every two or three days. Entries as to the removal of sutures, change of dressings, or adjustment of splints may be corroborative of the traumatic theory of the disability. The general rule of law in many states is that subjective complaints may be testified to in court, only by a treating physician. Notations as to objective findings may, however, be used as a basis of subsequent expert opinion by a non-treating medical witness. An entry that the patient left the hospital in a wheelchair or by ambulance would suggest there was not complete cure at that time. Special attention should be paid to consultation sheet points on which an opinion is requested, consultant's findings, conclusions and recommendations.

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Immediately following an operation, the surgeon writes or dictates a full description of his findings, abnormal and normal. Types of ligatures, sutures, packs and drains are listed. Techniques of removal of organs or parts of organs are described. Pre- and postoperative diagnoses are recorded. In traumatic cases, the findings at operation and the surgical procedures usually reveal the type and severity of the injuries. This record may also indicate whether the disability was of recent origin or longstanding; this may be of significance in cases such as hernia and diskogenic disorders.

Anesthesia record

The anesthesiologist is also able to provide some independent information. This record indicates the condition of the patient before, during and after the operation, charting the pulse, respiration and blood pressure. Type and amount of anesthetic, of IV fluids, of blood and substitutes, of medications given before and during the operation, and the postoperative condition are recorded by the anesthesiologist.

Type and extent of the surgery is often influenced by the pathologist called in for his opinion concerning some organ, or part of organ. He may be given some tissue for preparation of a frozen section and asked for an opinion while the patient is still on the operating table. After the operation all tissues are sent to the pathology laboratory for gross and microscopic examination. The report is appended to the patient's chart and a carbon copy is sent to the surgeon.

Nurses' notes

The nurse is considered as an unprejudiced and independent observer. Well-written bedside notes made by an observant nurse can provide helpful information for the physicians attending the patient, as well as for the attorney who later checks the records. Usually the nurse who gives the patient a medication makes the entry at that time but only one nurse signs the report for the eight-hour period. Night notations are made in red ink.

The defense counsel may triumphantly point out that there was no complaint of pain and suffering recorded in the nurses' notes. Further study may show that the patient had been given repeated analgesics, narcotics and hypnotics. The nurses' entries may reveal that the patient was nauseated and vomiting and refused food. Site and severity

of pain and aggravating factors may be noted. Restlessness, inability to sit up, labored respirations, weak pulse, pain due to adjustment of appliances or traction should be recorded in the nurses' notes. It is essential that during the course of treatment the nurses' notes be regularly checked and errors or omissions pointed out.

Professional liability

If the hospital is being sued for malpractice or negligence, the information in the hospital records will be of great interest to both plaintiff and defendant. In almost every such trial, the hospital records are produced in court and received in evidence.

The general rule is for plaintiff's counsel to join as defendant parties all physicians—and often nurses—who have had anything to do with the care and treatment of the patient. The physician is not responsible for the acts of the hospital or its agents or servants. In many instances, any physician whose name appears on the hospital records is sued along with the hospital, even if he feels that he has lived up to the standards of medical practice in the community.

The physician has no individual responsibility to see that the hospital records are correctly kept, except for those portions recorded by himself. However, if the records are carelessly kept, or some important data omitted, it may be claimed that this led the physician to making an incorrect diagnosis or giving improper treatment. It is essential that the attending physician regularly check on entries made by nurses, interns and other hospital personnel, and call attention to errors by dated marginal notes.

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Tax Clinic – *Q and A*

Joseph Arkin, C.P.A.

Q. I'm not very good at bookkeeping and when I go into practice I will probably have my hands full trying to keep my records straight. I won't be able to afford an accountant on a monthly basis, yet I don't want to be charged with a crime in case my records aren't 100% up to par. Am I running too great a risk?

A. The Income Tax Regulations place a burden on each taxpayer to keep such records as will enable the Commissioner to be able to ascertain a taxpayer's true income for any given period. Where you make an honest attempt to keep records and make minor mistakes, a Revenue Agent upon audit will only assess the difference in tax which is due because of your errors.

● *Address your questions to: Editor, Tax Clinic, Resident Physician, 1447 Northern Blvd., Manhasset, Long Island. Personal replies cannot be made, but your question may be answered in future issues of RP.*

Sloppy records can give rise to a 5% negligence penalty, especially after an Agent warns you that your records are too haphazard and too incomplete.

A doctor was recently examined and his records were found to be in one sorry mess. Omissions of income were consistent and sizeable. The Commissioner used the "net worth" system of reconstructing the doctor's income for the years in question, and asked for additional taxes plus penalties for fraud.

The Commissioner's determinations were sustained because of the fact that the understatement of income for each of the years in question was *consistent* and *sizeable*. Items of farm income, interest and dividends were also omitted from the return.

In an evident slap at this physician the court pointed out that "it was not preoccupation with the healing of the ills of mankind which caused him to understate his income, but rather, that his understatements were due primarily to an intent on his part to evade taxes on his income." *(Grubb TCM 1961-153)*

In this connection it will be well to recall that many local medical societies now consider it grounds for suspension or revocation of privileges where a doctor is found guilty of a felony or other serious crime, even though the crime has nothing to do with the practice of medicine.

As a warning to those about to enter practice it can only be said: *Keep full and adequate records. Adopt a system of accounting and have your office assistant, nurse, or wife administer it for you.*

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NEWS ROUNDS

Hemoglobin Survey Announced

To stimulate interest in the accuracy of hemoglobin measurements, the College of American Pathologists' Standards Committee has announced a National Hemoglobin Survey. Available to all physicians and hospitals, participants will receive a set of survey samples as well as a critique on the accuracy and precision of hemoglobin measurements plus suggestions for increasing the reproductibility under practical conditions. Questions concerning calibration of photometers for hemoglobin measurement may also be directed to the committee.

To participate in this hemoglobin survey, send $10 to: Standards Committee, College of American Pathologists, Prudential Plaza, Chicago 1, Illinois.

What's the Doctor's Name?

Here was a physician who became one of the most powerful of modern French novelists, a man who ran the gamut of active medical practice, world travel and observation, as well as prolific writing. In the world of the mind, however, he alienated himself from his native country by support of the enemy's racist theories and gradually destroyed his own equilibrium with conflicting pity and contempt for his patients and mankind in general.

Wounded in World War I, he decided on a medical career during his convalescence, and after his studies traveled widely as a ship's surgeon and on missions in Africa for the League of Nations. He practiced in the slums of Paris, served as a physician for the Ford Motor Company near Detroit and visited the Soviet Union, which he denounced in the book *Mea Culpa* (1937).

His earliest writings, *Journey to the End of the Night* (1934) and *Death on the Installment Plan* (1938) were his most successful. They were morbid, embittered studies of French slum life, which he knew well as the child of an office clerk and seamstress. There followed *Trifles for a Massacre* (1941), *Thunders and Arrows* (1949), *War* (1949) and *Guignol's Band,* published here in 1954.

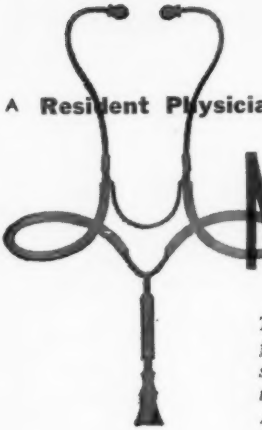
In 1940, with the Nazi occupation of Paris, the doctor-writer had revealed himself as a Fascist and anti-Semite, taking up the Nazi cause with pamphlets and books. He fled to Germany in 1944 with Marshal Petain and was returned to France in 1951 as part of a general amnesty. The literateur, Milton Hindus, wrote an apologia, *The Crippled Giant,* in behalf of his writing talent and personal worth as separate from his political judgment. Visiting him near Copenhagen in 1948, he had found him partly paralyzed and close to insanity.

His publisher, Robert de Noel, was assassinated in 1945 by French Resistance fighters. The doctor died on July 1, 1961, age 67, of natural causes.

Can you name this doctor?

(Answer on page 52)

A **Resident Physician** MONTHLY FEATURE



Mediquiz

These questions were prepared especially for RESIDENT PHYSICIAN *by the Professional Examination Service, a division of the American Public Health Association. Answers will be found on page 195.*

1. Thromboangiitis obliterans is a disease characterized by:

A) Sharply demarcated areas of ischemia of the finger tips usually brought on by exposure to cold.

B) Peripheral edema associated with venous thromboses and high blood amylase and typically occurring in conjunction with diabetes mellitus.

C) Intermittent claudication, decreased peripheral circulation, and arterial and venous inflammation.

D) Localized constriction of the vessels and soft tissue of the toes leading to auto-amputation and frequently found in people of African origin.

E) A generalized periarteritis affecting the intima and adventitia of the vessels and resulting in calcification of the media.

2. The most frequent of the early symptoms of bronchogenic carcinoma is:

A) Clubbing of the fingers.
B) Chest pain.
C) Hemoptysis.
D) Weight loss.
E) A dry hacking cough.

3. In the instance of a contaminated wound with a foul-smelling discharge containing gas, one should immediately suspect:

A) Infection with clostridium perfringens.

...does she know that only **you** can help?

Many patients are unaware that their physician is the best source of contraceptive advice. Your prescription for Ortho-Gynol or Ortho-Creme with a diaphragm assures her the best available contraceptive protection. Accurate tests* for spermicidal potency, as well as years of clinical use, demonstrate that ORTHO contraceptive products are instantaneously spermicidal. The choice between Ortho-Gynol and Ortho-Creme is one of individual esthetic preference.

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WHENEVER A DIAPHRAGM IS INDICATED

Ortho

B) Tetanus.

C) Invasion of the tissue by Group B streptococci.

D) Actinomycosis.

E) Infarction of tissue.

4. The first stage of surgical anesthesia is characterized by:

A) Loss of eyelid reflex.

B) Unconsciousness.

C) Analgesia.

D) Loss of posterior pharyngeal reflex.

E) Muscular relaxation.

5. Which one of the following measures is of greatest importance in minimizing the hazard of explosion during surgical anesthesia?

A) Avoidance of abrasive surfaces which tend to cause static sparks.

B) Dehumidification of the operating room air.

C) Humidification of the operating room air.

D) Provision of woolen bed clothing and garments for operating room personnel.

E) Filtration of operating room air in order to remove dust.

6. The chief limiting factor in the efficiency of ammonium chloride as a diuretic agent is:

A) The production of potassium losses.

B) The development of acidosis.

C) Renal ammonia production.

D) Renal production of titratable acid.

E) Patients' intolerance to adequate doses.

7. The primary pharmacodynamic action of digitalis on the failing heart is to:

A) Cause increased conduction of impulses from the auricles to the ventricles.

B) Increase the force of contraction and cause more complete ventricular emptying.

C) Increase the amount and oxygen saturation of blood flow to the vagal nuclei in the brain stem.

D) Increase the coronary blood flow in the region of the cardiac pacemaker.

E) Reduce pulmonary edema by increasing diuresis.

8. The commonest opinion regarding the significance and management of single thyroid nontoxic adenomas is that:

A) Although there is no increased incidence of malignancy in such adenomas, surgical removal is the best treatment.

B) These nodules often enlarge and give rise to pressure

symptoms. Thus when they are discovered it is best to remove them in order to avoid future pressure symptoms.

C) Since an appreciable percentage of these nodules prove on removal to be malignant, surgical removal is the treatment of choice.

D) The increased incidence of cancer in single thyroid nodules can be prevented by routine administration of I^{131}.

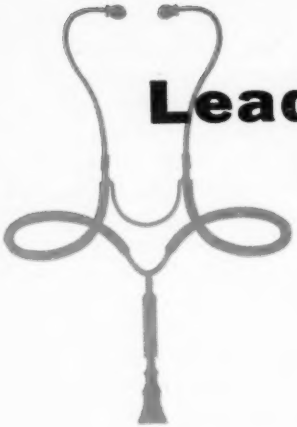
E) There is no increased incidence of malignancy in such nodules and surgery should not be done routinely.

9. Cessation of menses, flattening of the breasts, hirsutism and deepening of the voice in a 35-year-old female with 3 children is most probably the result of coexisting:

A) Arrhenoblastoma.
B) Pelvic tuberculosis.
C) Chorionepithelioma.
D) Adrenal insufficiency.
E) Hypothyroidism.

10. A 40-year-old shipyard worker alleges injury to his left shoulder and arm, when the shoulder was dislocated but successfully reduced at a first-aid station 10 days previously. The patient complains of severe burning pain, numbness and weakness of the left arm since the accident despite physical therapy. Examination shows one-half inch reduction in circumference of the left arm as compared with the right, one inch reduction in the left forearm, weakness of pronation of the forearm and of flexion movements in the wrist, thumb, and index fingers, wasting of the thenar eminence, and difficulty in opposing the thumb. Sensory examination discloses reduced sensation over the palmar surface and dorsal tips of the thumb, index finger, and middle finger, and adjacent portion of the palm of the hand. Examination is otherwise negative except for emotional tension and reduced corneal reflexes. The correct diagnosis is:

A) Conversion hysteria.
B) Combined ulnar and median nerve injury.
C) Combined median and musculocutaneous nerve injury.
D) Median nerve injury.
E) Ulnar nerve injury.



Leads and Needs

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PHYSICIANS WANTED

WANTED—QUALIFIED PHYSICIAN in 248-bed tuberculosis hospital; U.S. citizenship and Indiana medical license or eligibility thereof required; salary commensurate with experience; quarters and maintenance for single physician or physician and wife. Apply: Superintendent, Irene Byron Hospital, Fort Wayne, Indiana.

PSYCHIATRIST—Board certified at $18,000 and Board eligible at $12,000; in northeast hospital, private, non-profit, in year round resort area with good schools, roads, sports. Apply: Superintendent, Brattleboro Retreat, Brattleboro, Vermont.

INTERNIST, BOARD ELIGIBLE. WRITE: Box 6207 c/o Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

THREE-YEAR APPROVED PSYCHIATRIC Residency, southern California medium-sized State Hospital, 15 miles from Los Angeles; faculty of UCLA and USC departments of Psychiatry and Psychoanalytic Institute in full didactic and clinical program; outpatient department and outstanding affiliations in Child Psychiatry and Psychosomatic Medicine; salary range $710 to $862 per month in five-year program; four-year program also available; graduates of foreign medical schools must have valid California license. Apply to: Chief of Professional Education, Metropolitan State Hospital, Norwalk, California.

PEDIATRIC RESIDENCY in San Francisco; second year of approved two-year residency starting July 1962; 240-bed general hospital with active inpatient and outpatient pediatric service and allied supporting specialties, including allergy, psychiatry; nine certified pediatricians on full-time staff. Write: A. N. Lethin, M.D., Chief, Department of Pediatrics, Kaiser Foundation Hospital, 2425 Geary Boulevard, San Francisco 15, California.

ANESTHESIOLOGY RESIDENCY fully approved; 500-bed hospital, new facilities; all types of surgery anesthetic agents and methods; stipend $2400-$3000 first year plus other benefits. Anesthesia Department, Einstein Medical Center, Northern York and Tabor Roads, Philadelphia, Pennsylvania.

PATHOLOGY RESIDENT: A.M.A. four years approved; voluntary teaching hospital affiliated with medical school; pathologist certified; beginning stipend $4560 plus partial maintenance. Write: Dr. Harry Shecter, Saginaw General Hospital, Saginaw, Michigan.

RESIDENCIES IN PSYCHIATRY, Central State Griffin Memorial Hospital; three years approved training provides broad psychiatric experience; intensive psychotherapy supervision; residency program offers didactic courses and seminars in psychoanalytically oriented psychiatry, rehabilitation, residential treatment of children, adult outpatient services, elective work in research methodology and behavorial sciences, and group psychotherapy. Salary, first year, $6000; second year, $7000; third year, $8000. For details write to: Floyd S. Cornelison, Jr., M.D., Director of Education and Research, Central State Griffin Memorial Hospital, Norman, Oklahoma.

INTERN AND RESIDENT PHYSICIANS: Positions available in fully approved general hospital for one year rotating internship and residencies in General Practice, Internal Medicine, Pathology, Forensic, Pathology, Pediatrics, Obstetrics-Gynecology, Surgery and Urology; training program under direction of 100 attending staff physicians, coordinated by director of medical services; associated with University of Southern California; salary: Interns $300, Residents $375-$400-$425-$450. Contact: Administrator, Kern General Hospital, Bakersfield, California.

MEDIQUIZ

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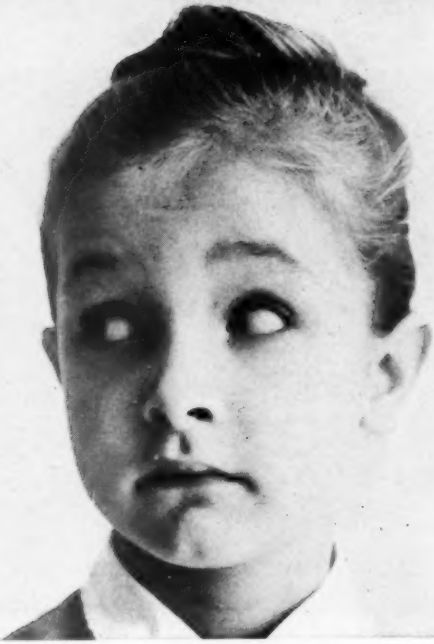
"The literature is replete with references to the phenothiazines and the role they play in the treatment of tension states, anxiety, and agitation. While numerous compounds have been introduced, the search continues for an ataraxic that is not only effective, but is relatively free of annoying side effects. My experience with thioridazine [Mellaril] in 87 patients confirms the findings of other investigators regarding its efficacy in the control and treatment of various nervous and mental disturbances seen in everyday practice."[1]



there hardly seems an excuse for having a runny nose these days

The youngster who stops sniffling and begins breathing freely in a few minutes with all air passages cleared...and no sense of jitteriness or nasal irritation...is experiencing the Novahistine Effect.

Each 5 cc. teaspoonful of good-tasting Novahistine Elixir contains: phenylephrine HCl, 5.0 mg. and prophenpyridamine maleate, 12.5 mg. And the distinctly additive action achieved by combining this orally effective vasoconstrictor and superior antihistamine usually controls cold symptoms better than any single drug.

Novahistine® Elixir

PITMAN-MOORE COMPANY

DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS 6, INDIANA

The Newest Most Brilliant Departure From The "Ordinary" in Professional Furniture

2nd Century ... by Aloe

Strikingly beautiful Vinyl permanently laminated to indestructible steel . . . functioning with an efficiency unknown in professional furniture until now... wider, more spaciously body-contoured treatment tables uniquely mechanized to raise or lower with "self-assisting" ease . . . vise-grip stirrup positioning locking at any height, length and spread . . . high impact, sound deadening Polystyrene drawers responding to a finger touch with full-width pulls, open quietly, smoothly . . . revealing coved bottoms to inhibit dust . . . are but a few of many features designed to lessen the fatigue of a modern practice . . . reflect the discriminating standards of today's physician.

Auxiliary pieces, cabinets and tables now on order in eight striking combinations of color and finish.

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1831 Olive St., St. Louis 3, Mo.

Send your new 2nd Century Brochure illustrated in full color.

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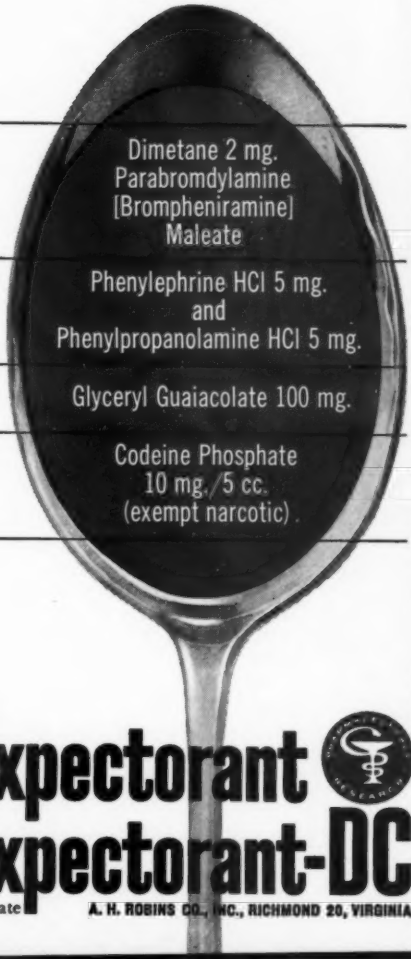
11

what most coughers need

now in a single teaspoon (5 cc.)



the antihistamine most likely to succeed

two highly approved decongestants

the expectorant that works best

additional cough suppressant action
(in Dimetane Expectorant-DC)

Dimetane® Expectorant

Dimetane® Expectorant-DC

Dimetane Expectorant with Codeine Phosphate

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Take an "inside look" at a remarkable advance in topical steroid therapy

Veriderm Medrol consists of Veriderm, a base closely approximating the composition of normal skin lipids, and Medrol, highly effective corticoid.

Topical use of Veriderm Medrol Acetate produces symptomatic relief and objective improvement of dermatoses, and at the same time aids in correcting dry skin conditions. Veriderm Medrol Acetate, less greasy than an ointment, less drying than a lotion, is indicated in atopic, contact, or seborrheic dermatitis; neurodermatitis; anogenital pruritus; allergic dermatoses.

Available in four formulations: Veriderm Medrol Acetate 0.25% — Each gram contains: Medrol (methylprednisolone) Acetate 2.5 mg.; Methylparaben 4 mg.; Butyl-p-hydroxybenzoate 3 mg.; in a skin lipid base composed of saturated and unsaturated free fatty acids; triglycerol and other esters of fatty acids; saturated and unsaturated hydrocarbons; free cholesterol; high-molecular-weight alcohol; with water and aromatics. (Veriderm Medrol Acetate 1% is also available.)

For prophylaxis against secondary infection: Veriderm Neo-Medrol Acetate 0.25% — Each gram contains: Medrol (methylprednisolone) Acetate 2.5 mg.; Neomycin Sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); Methylparaben 4 mg.; Butyl-p-hydroxybenzoate 3 mg.; in a skin lipid base composed of saturated and unsaturated free fatty acids; triglycerol and other esters of fatty acids; saturated and unsaturated hydrocarbons; free cholesterol; high-molecular-weight alcohol; with water and aromatics. (Veriderm Neo-Medrol Acetate 1% is also available.)

Administration: After careful cleansing of the affected skin to minimize the possibility of introducing infection, a small amount of either Veriderm Medrol Acetate or Neo-Medrol Acetate is applied and rubbed gently into the involved areas. Application should be made initially one to three times daily. Once control is achieved — usually within a few hours — the frequency of application should be reduced to the minimum necessary to avoid relapses. The 1% preparation is recommended for beginning treatment and the 0.25% preparation for maintenance therapy.

Contraindications: Local application of Veriderm Medrol Acetate or Neo-Medrol Acetate is contraindicated in tuberculosis of the skin and in other cutaneous infections for which an effective antibiotic or chemotherapeutic agent is not available for simultaneous application.

These preparations are usually well tolerated. However, if signs of irritation or sensitivity should develop, application should be discontinued. If bacterial infection should develop during the course of therapy, appropriate local or systemic antibiotic therapy should be instituted.

Supplied in 5 Gm. and 20 Gm. tubes.

Veriderm
TRADEMARK

Medrol† ACETATE

Neo-Medrol† ACETATE

†TRADEMARK, REG. U. S. PAT. OFF.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

THEN—postoperative analgesia meant lengthy immobilization with more complications and slower recovery.

Alvodine is the new Winthrop analgesic that is as effective as morphine in relieving postoperative pain. However, it allows the patient to be alert sooner, to move about sooner and to cooperate sooner because only rarely does it cause drowsiness or undue sedation.

Clinical results in over 3000 patients showed Alvodine to be a real advance in the relief of pain—closer to "pure" analgesia than any drug yet developed.

deCiutiis* says of Alvodine: "We believe that all surgeons and anesthesiologists will welcome a drug that when properly used in the postoperative period will give pain relief without so markedly depressing the patient that the recovery time is lengthened and the incidence of postoperative pneumonia and atelectasis increased."

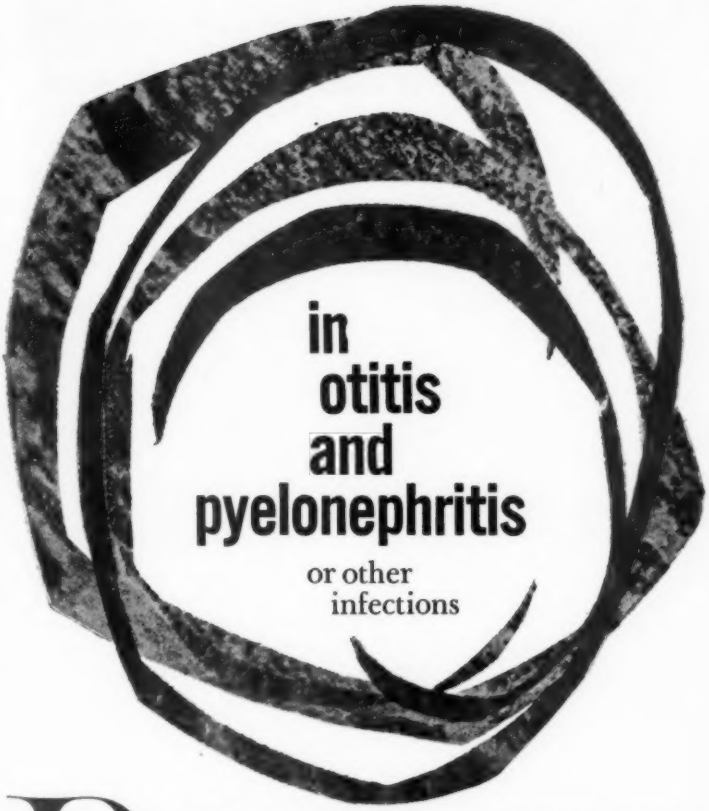
With Alvodine, respiratory and circulatory depression are rare; nausea and vomiting are uncommon. Alvodine does not cause constipation.

Alvodine ampuls of 1 cc. contain 20 mg. Usual adult dose: from 0.5 to 1 cc. by subcutaneous or intramuscular injection every four hours as needed. Also available in scored tablets of 50 mg. for oral administration. *Narcotic blank required.*

*deCiutiis, V. L.: Evaluation of Alvodine: a new narcotic analgesic, a double blind study, *Current Res. Anesth. & Analg.* 40:174, March-April, 1961.

Alvodine (brand of piminodine ethanesulfonate), trademark reg U.S. Pat. Off.

Winthrop LABORATORIES New York 18, N.Y.



antibiotic therapy with an added measure of protection

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DEMETHYLCHLORTETRACYCLINE LEDERLE

against relapse—up to 6 days' activity on 4 days' dosage
against secondary infection—sustained high activity levels
against "problem" pathogens—positive broad-spectrum antibiosis

CAPSULES, 150 mg., 75 mg.; PEDIATRIC DROPS, 60 mg./cc.; SYRUP, 75 mg./5 cc.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

The last goodbyes are but memories. From every side, strange sounds; the restlessness of the sea. Now, the time is for sleep. Restful, gentle, non-barbiturate Placidyl sleep. Placidyl, the traveler's lullaby....certain as the tides.

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In General Practice: No contraindication in aged or debilitated. No respiratory depression in the usual dosages. **In Surgery:** Pre or postoperative. **In Psychiatry:** Can be used at effective dosages over long periods. **In Internal Medicine:** Sedation without disturbance of physiological responses. **In Obstetrics-Gynecology:** Well tolerated for use during complete pregnancy cycle.

ABBOTT

Placidyl® nudges your patient to sleep

Ethchlorvynol, Abbott.

Her Doctor cleared her dandruff–and her shelves–with a stroke of his pen

And he did it with just one prescription for Selsun. Now, no more searching for dandruff "cures" that only take up space on shelves. Best of all, no more itching, burning, scaling . . . because Selsun has been reported to stop dandruff in 92 to 95% * of all cases. Fortunately, she mentioned the symptoms to her doctor. Most people don't. That's why a word from you . . . Selsun . . . can mean so much to your dandruff patients.

SELSUN®
Suspension
an ethical answer to a medical problem
Selsun–Selenium Sulfide, Abbott
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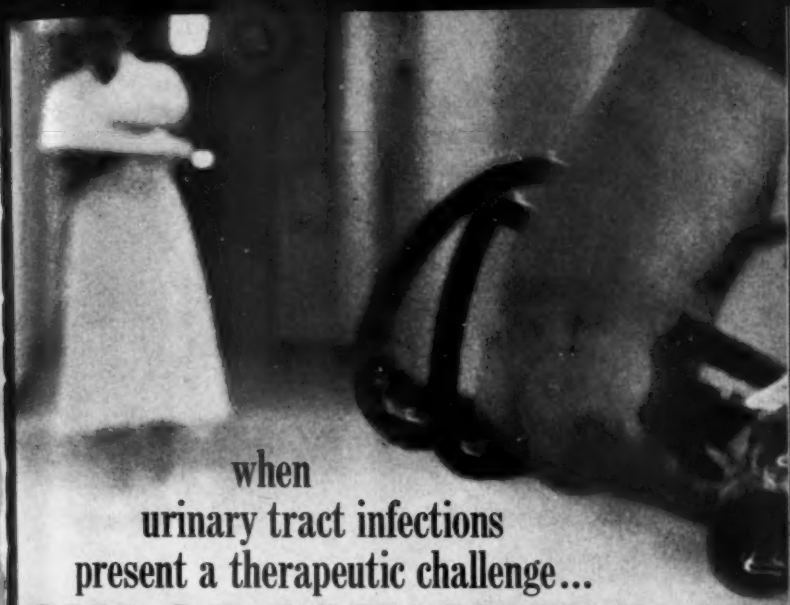
*Slinger, W. N., and Hubbard, D. M., Treatment of Seborrheic Dermatitis with a Shampoo Containing Selenium Disulfide, Arch. Dermat. & Syph., 64:41, 1951.



when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**:694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

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PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

the 'teens—a time of transition

No longer a child, not yet a woman — surely a period of early female adolescence when professional counseling is needed. When the advice includes use of Tampax® — the modern method of protection — she receives reassurance of safe, complete, discreet menstrual hygiene.

Tampax is frictionless and nonirritating. It will not cause erosion or block the menstrual flow. Because Tampax provides *internal* protection, it does not favor the development of odor or establish a bridge for the entry of pathogenic bacteria. Tampax *does* afford easy management, easy disposal. And since wide clinical evidence confirms that virginity is not a contraindication to its use, Tampax is suitable for every age of the menstrual span. Youngsters especially appreciate Tampax at gym and swim time: no encumbrances interfere with activity or cause embarrassment. The older girl favors Tampax because of the social poise it makes possible, despite "the time of the month." Tampax is available in three absorbencies to meet varying requirements.

Why not familiarize yourself now with the facts about Tampax? Its matter-of-fact simplicity, safety and security are just what your teenage patients will be looking for.

Tampax Incorporated, Palmer, Mass.

not a general-purpose antibiotic

Albamycin is not a broad-spectrum antibiotic, recommended for routine infections. It is specific for staphylococci (including resistant strains), and its use alone should (with the exceptions listed below) be limited to those cases in which staph is known or strongly suspected to be the causative organism.

Albamycin*

Indications — Albamycin is indicated in the treatment of staphylococcic infections, particularly in patients sensitive to other antibiotics or in the infections in which the organism is resistant to other antibiotics and sensitive to Albamycin, and in urinary tract infections due to microorganisms resistant to other commonly employed antibacterial agents but sensitive to Albamycin — notably certain strains of Proteus.

Administration and Dosage — **Capsules and Syrup:** The recommended dosage in adults is 500 mg. every twelve hours or 250 mg. every six hours, continued for at least forty-eight hours after the temperature has returned to normal and all evidence of infection has disappeared. In severe or unusually resistant infections, 0.5 Gm. every six hours or 1 Gm. every twelve hours may be employed. The dose for children is 15 mg. per kilogram of body weight per day for moderately acute infections; this may be increased to 30 to 45 mg. per kilogram of body weight per day for severe infections. These doses may be administered on schedules similar to those for adults.

Parenteral: Intramuscularly — 5 cc. of Albamycin solution may be used directly by slow injection deep into the gluteal muscle.

Intravenously — it is recommended that 5 cc. of Albamycin solution be diluted further with 250 to 1000 cc. of sterile injection solution of sodium chloride, Darrow's solution, or Ringer's solution and administered by intravenous infusion, or by diluting to a suitable quantity and administered by continuous drip infusion. **Do not use with dextrose solution.** When it is necessary to use a smaller volume intravenously, 5 cc. of Albamycin solution may be diluted to a minimum of 30 cc. with one of the above diluents and administered slowly over a period of five to ten minutes to avoid irritation of the vascular endothelium. The dosage for adults is 500 mg. Albamycin administered either intramuscularly or intravenously every twelve hours. For children with moderately acute infections, the dosage is 15 mg. per kilogram of body weight per day. The daily dosage should be administered in two divided doses at intervals of twelve hours. As soon as the patient's condition permits, parenteral Albamycin should be replaced with oral Albamycin therapy.

Side Effects — Albamycin is a substance of low toxicity but is capable of inducing urticaria and maculopapular dermatitis. Leukopenia, which was rapidly reversible, has been reported in approximately 1% of cases. All of these side effects disappear rapidly upon discontinuance of the drug. In a certain few patients, a yellow pigment has been found in the plasma. This pigment is a metabolic by-product of the drug which, however, may interfere with determination of bilirubin and icteric index. Its presence is not associated with abnormal liver function tests or liver enlargement.

Available — Albamycin, 500 mg., sterile, Mix-O-Vial,† Each Mix-O-Vial contains: 500 mg. Novobiocin (as novobiocin sodium), also 175 mg. Nicotinamide; 0.47 cc. N,N-Dimethylacetamide; 42.3 mg. Benzyl alcohol; 4.23 cc. water for injection. Albamycin Capsules: Each capsule contains: 250 mg. Novobiocin (as novobiocin sodium). Albamycin Syrup. 125 mg. per 5 cc. Each 5 cc. (one teaspoonful) contains: 125 mg. Novobiocin (as novobiocin calcium). Preserved with methylparaben, 0.075%, and propylparaben, 0.025%.

*Trademark, Reg. U. S. Pat. Off. — The Upjohn brand of crystalline novobiocin sodium. †Trademark, Reg. U. S. Pat. Off.

The Upjohn Company
Kalamazoo, Michigan

Upjohn

Serpasil lowers blood pressure gently, guards against cardiac damage

Serpasil—in addition to its well-established effectiveness in controlling high blood pressure—offers an important bonus in treating hypertension. Laboratory studies show that Serpasil can prevent stress-induced heart damage,[1,2] presumably through its ability to deplete the catecholamines (epinephrine and norepinephrine) from the myocardium.[3,4]

These laboratory data are clinically significant in light of growing evidence[5-7] that more than purely "mechanical" overwork may be involved in cardiac damage associated with hypertensive disease. Raab[5] suggests that much of this damage is due to a direct metabolic action of the catecholamines on heart muscle. The way to prevent it, he believes, is to deplete or inactivate excess catecholamines.

Thus, Serpasil not only eases the mechanical burden on the heart by reducing peripheral resistance and slowing heart rate, it may also provide protection against catecholamine-induced heart damage—the added benefit in prescribing Serpasil for hypertension.

LABORATORY EVIDENCE SHOWS SERPASIL PREVENTS STRESS-INDUCED HEART DAMAGE[2]

Severe heart damage in unprotected stressed rat. Tissue taken from rat given 2α-methyl-9α-fluorohydrocortisone and stressed (by restraint) for 15 hours. (Photomicrographs from Raab.[2])

No heart damage in stressed rat protected with Serpasil. Tissue taken from rat given 2α-methyl-9α-fluorohydrocortisone and stressed as at left, but also given Serpasil (0.4 microgram daily for one week).

Note: While Serpasil did not completely protect the hearts of all animals in this study, it greatly reduced myocardial damage in most of them. Original magnification of photomicrographs: approximately 450 X.

References: 1. Raab, W., Stark, E., and Gigee, W. R.: Circulation 20:764 (Oct.) 1959. 2. Raab, W.: Research report to CIBA. 3. Carlsson, A., Rosengren, E., Bertler, A., and Nilsson, J.: Psychotropic Drugs (edited by Garattini, S., and Ghetti, V.), Elsevier Publishing Company, Amsterdam, 1957, pp. 363-372. 4. Waud, D. R., Kottegoda, S. R., and Krayer, O.: J. Pharmacol. & Exper. Therap. 124:340 (Dec.) 1958. 5. Raab, W.: Am. J. Cardiol. 5:571 (May) 1960. 6. Bayer, O., Borden, N. E., Boeminghaus, H., and Effert, S.: Ztschr. klin. Med. 146:607 (June) 1950. 7. Raab, W.: Hormonal and Neurogenic Cardiovascular Disorders, The Williams & Wilkins Company, Baltimore, 1953, pp. 467, 465.

Complete information about indications, dosage, cautions, and side effects of Serpasil—as well as a full report on its heart-protecting action—will be sent on request. a/ CIBA

Supplied: Tablets 0.1 mg., 0.25 mg. (scored) and 1 mg. (scored).

Serpasil®

(reserpine CIBA)

CIBA

SUMMIT-NEW JERSEY

in SHOCK surgery · trauma · allergy · infection
when only corticosteroids can give the desired results

- mg. for mg. the most active steroid—Injection DECADRON® Phosphate is ready for immediate use—no reconstitution.
- in true solution—Injection DECADRON Phosphate flows readily even through a small-bore needle.
- dramatic response in minutes, I.M. or I.V.—Injection DECADRON Phosphate may be injected as rapidly as desired.

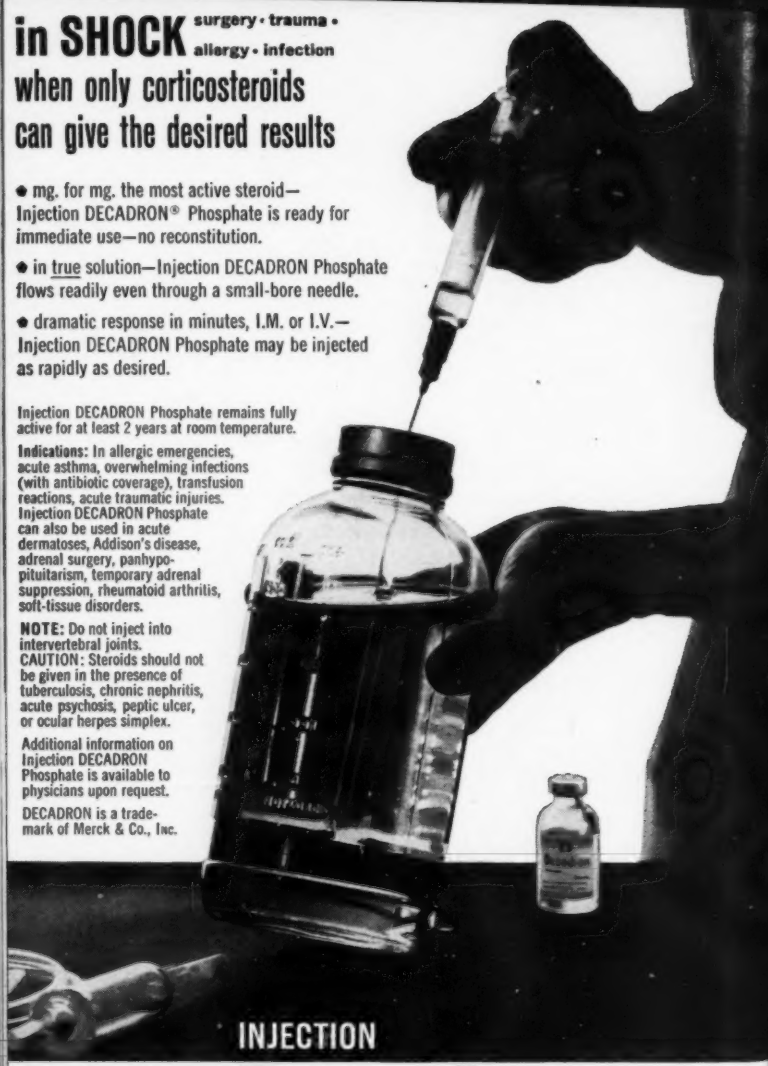
Injection DECADRON Phosphate remains fully active for at least 2 years at room temperature.

Indications: In allergic emergencies, acute asthma, overwhelming infections (with antibiotic coverage), transfusion reactions, acute traumatic injuries. Injection DECADRON Phosphate can also be used in acute dermatoses, Addison's disease, adrenal surgery, panhypopituitarism, temporary adrenal suppression, rheumatoid arthritis, soft-tissue disorders.

NOTE: Do not inject into intervertebral joints.
CAUTION: Steroids should not be given in the presence of tuberculosis, chronic nephritis, acute psychosis, peptic ulcer, or ocular herpes simplex.

Additional information on Injection DECADRON Phosphate is available to physicians upon request.

DECADRON is a trademark of Merck & Co., Inc.



INJECTION

THE DIRECT APPROACH to corticosteroid benefits

Decadron® PHOSPHATE

DEXAMETHASONE 21-PHOSPHATE

MSD MERCK SHARP & DOHME • Division of Merck & Co., Inc., West Point, Pa.

new definitive medication for the prevention and treatment of urethral strictures

Furacin-HC Urethral Suppositories

Roll and Waller have reported on the use of these suppositories following transurethral resection in 35 patients; 30 were followed from one to six months. Excellent results were obtained, with rapid relief of symptoms, freedom from side effects and no development of urethral strictures.

"We feel the good results are due to three functions performed by the suppositories. First of all, they mechanically dilate the urethra and cover the raw mucosal surfaces. Secondly, they combat infection and thus inflammation. Thirdly, the hydrocortisone directly suppresses inflammation and subsequent fibrosis."[1]

FURACIN-HC Urethral Suppositories combine the potent antibacterial action of FURACIN with the anti-inflammatory effect of hydrocortisone and prompt local anesthetic action of diperodon—plus gentle dilation.

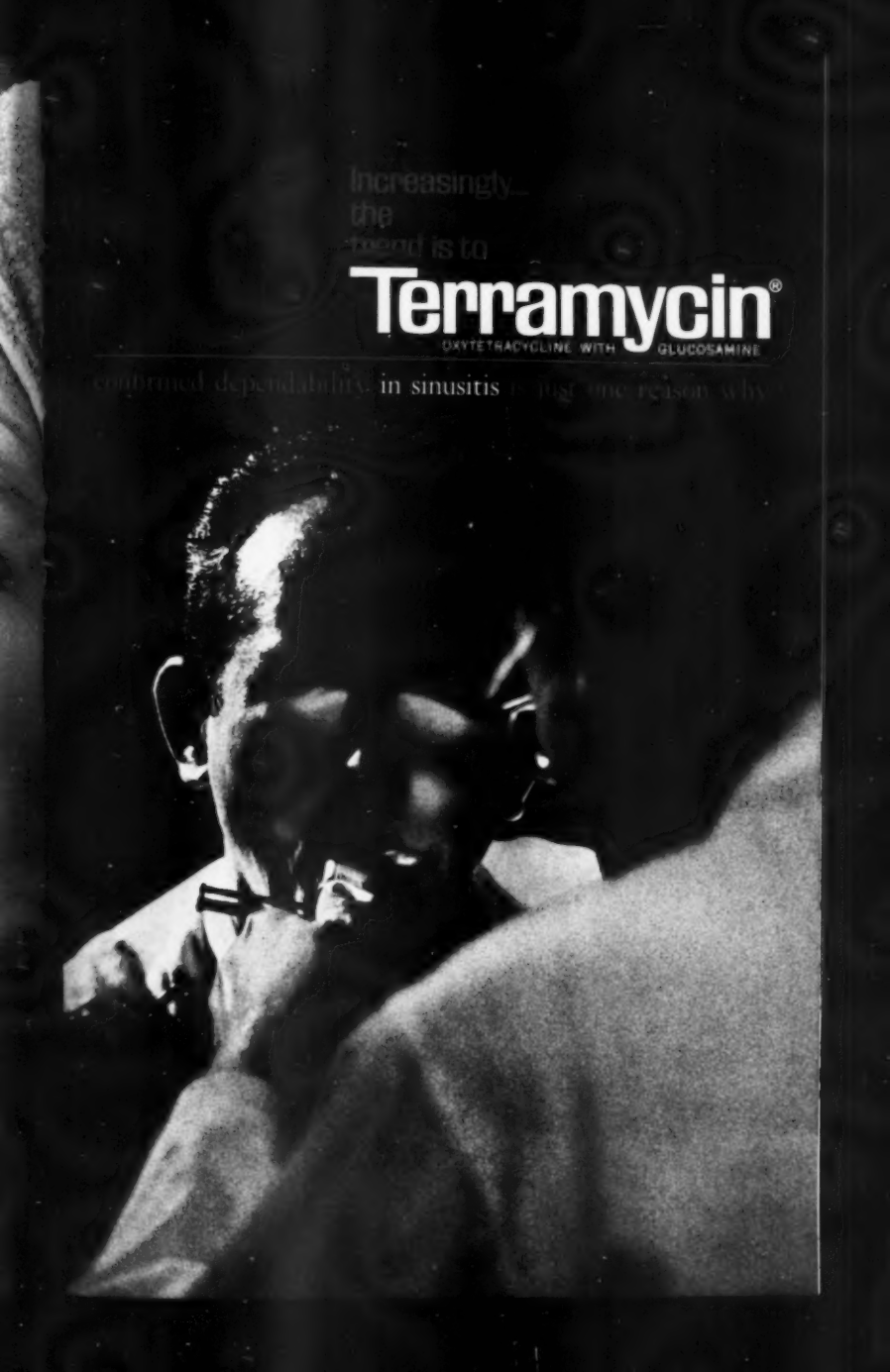
Prevention of urethral strictures: postinstrumentation as in transurethral resection; post-catheterization ■ treatment of urethral strictures ■ treatment of urethral inflammation primary and secondary to infection and trauma ■ treatment of posterior urethritis and trigonitis in women

FURACIN-HC Urethral Suppositories—Box of 12, 1.3 Gm. each, hermetically sealed in aluminum foil. Each suppository contains FURACIN (brand of nitrofurazone) 0.2%, hydrocortisone acetate 1% and diperodon hydrochloride 2% in a water-dispersible base.®

1. Roll, W. A., and Waller, J. I.: J. Urol., Balt. 81:289, 1959.

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, N. Y.

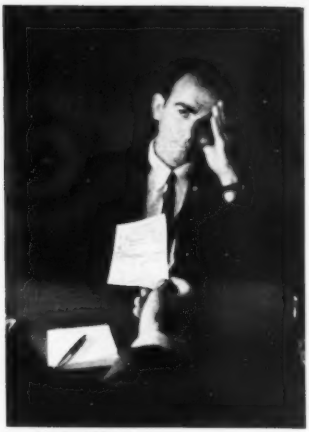

me?
use vinegar?


Increasingly...
the
trend is to
Terramycin®
OXYTETRACYCLINE WITH GLUCOSAMINE
confirmed dependability in sinusitis
just one reason why

According to a recent report* on the effectiveness of Terramycin in 106 cases of upper respiratory tract infection: "The response in sinusitis was particularly gratifying, as both acute and chronic cases were controlled within an average of five days."

"It was the impression of the hospital staff that oxytetracycline [Terramycin] was not only better tolerated, but more effective than other antibiotics habitually used."

The results reported in this and many other studies confirm the vitality of Terramycin for broad-spectrum antibiotic therapy and demonstrate why—increasingly—the trend is to Terramycin.



In brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated.

More detailed professional information available on request.

another reason why the trend is to Terramycin—*versatility of dosage form:*

TERRAMYCIN Syrup/ Pediatric Drops *125 mg. per tsp. and 5 mg. per drop (100 mg./cc.), respectively—deliciously fruit-flavored aqueous forms . . . preconstituted for ready oral administration*

TERRAMYCIN Intramuscular Solution *50 mg./cc. in 10 cc. vials; 100 mg. and 250 mg. in 2 cc. ampules—the broad-spectrum antibiotic for immediate intramuscular injection . . . conveniently preconstituted . . . notably well tolerated at injection site with low tissue reaction compared to other broad-spectrum antibiotics*

Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

CAPSULES *250 mg. and 125 mg. per capsule*

convenient initial or maintenance therapy in adults and older children

Science for the world's well-being® Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, N. Y.

*Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, May, 1961.

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New Hospital .....

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My chief is Dr. (full name) .....

I expect to complete my training here: .....
month year

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The Pregnant

and her need for milk's calcium and phosphorus
–without excessive fat calories

Drinking enough milk during pregnancy to assure sufficient calcium has posed the problem of unwanted fat calories.

Now there's an easy, *natural* way to help assure her good calcium and nutritional status. Carnation Instant Nonfat Dry Milk provides *all* the calcium, protein, phosphorus and B-vitamins of fresh whole milk *with less than half the calories.*

For 25% more of these needed nutrients: Carnation Instant can be mixed over-strength by adding 1/3 cup extra crystals per quart. Less than 105 calories an 8-ounce glass, this enriched nonfat milk is one-fourth richer in calcium, protein, phosphorus and B-vitamins than ordinary nonfat milk. This wholesome beverage is naturally refreshing – with a richer flavor she'll enjoy. And even mixed over-strength, it costs her only 12¢ a quart.

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With the G-E Patrician "200" diagnostic x-ray package, you can enjoy saving and still not sacrifice needed *power*. This is important. For, only ample x-ra output will assure you exposure speed sufficient to overcome common motion blurring problems. The Patrician combination provides this *and more* in ever detail for radiography and fluoroscopy. For example: full-size 81" tilting tabl . . . independent tubestand . . . counterbalanced (not counterpoised) fluoro scopic screen or spot-film device . . . fine focus x-ray tube . . . fluroscopic shutter limiting device to confine radiation to screen area . . . automatic x-ray tub overload protection.

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High urine levels are not enough: for successful eradication of urinary pathogens, the anti-infective agent must reach effective concentrations in blood and tissues, as well as in the urine. Gantrisin does this. Unlike compounds that inhibit bacterial growth in the urine and on epithelial surfaces only, Gantrisin acts in deeper tissue layers, too. Effective against common urinary pathogens (including many resistant strains) and highly soluble at full pH range, Gantrisin may be prescribed with unhesitating confidence in acute and chronic infections and for routine prophylaxis. Reports in hundreds of journals and scores of textbooks reflect the position of Gantrisin as a drug of choice in genitourinary infections.

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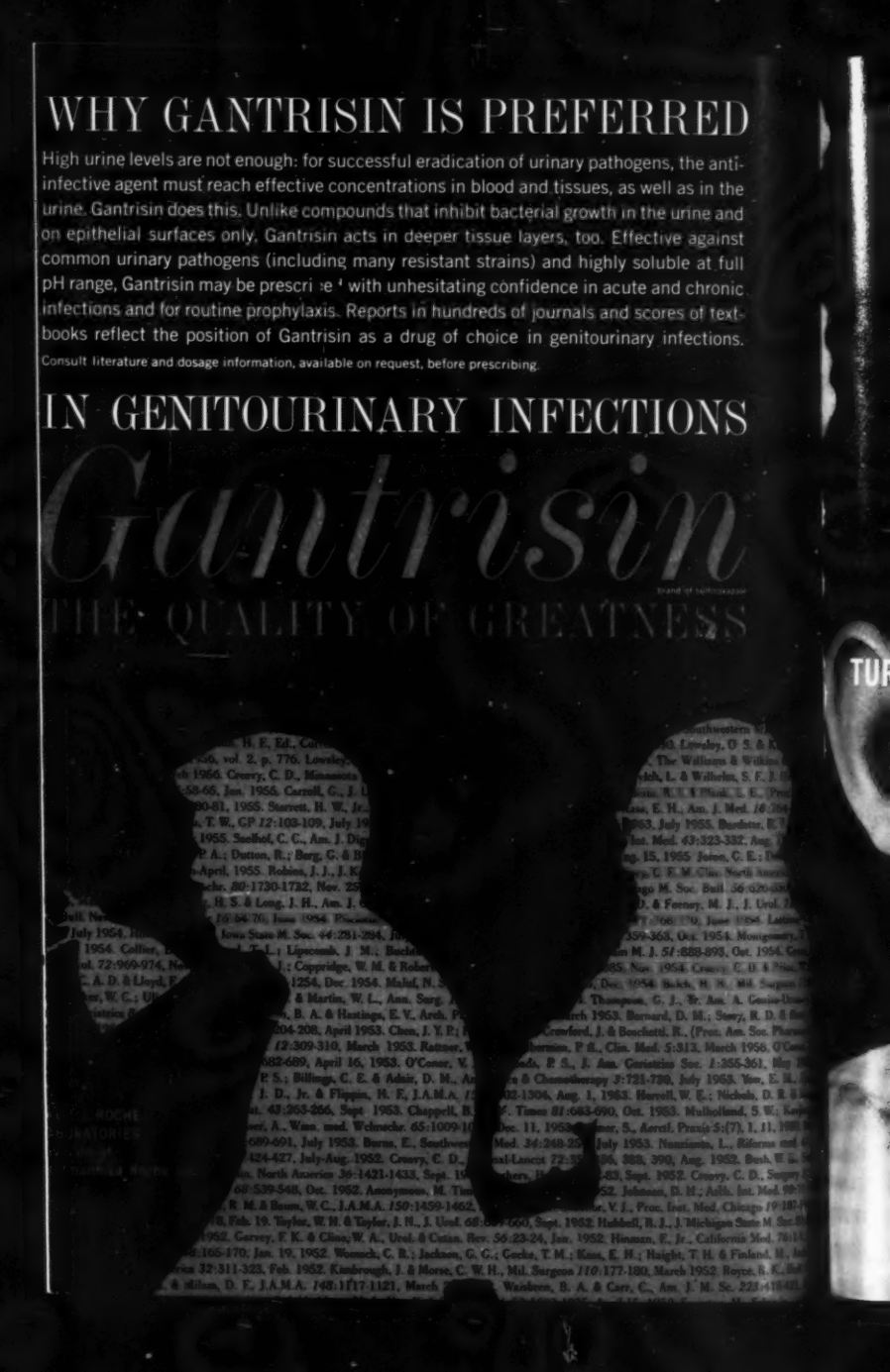

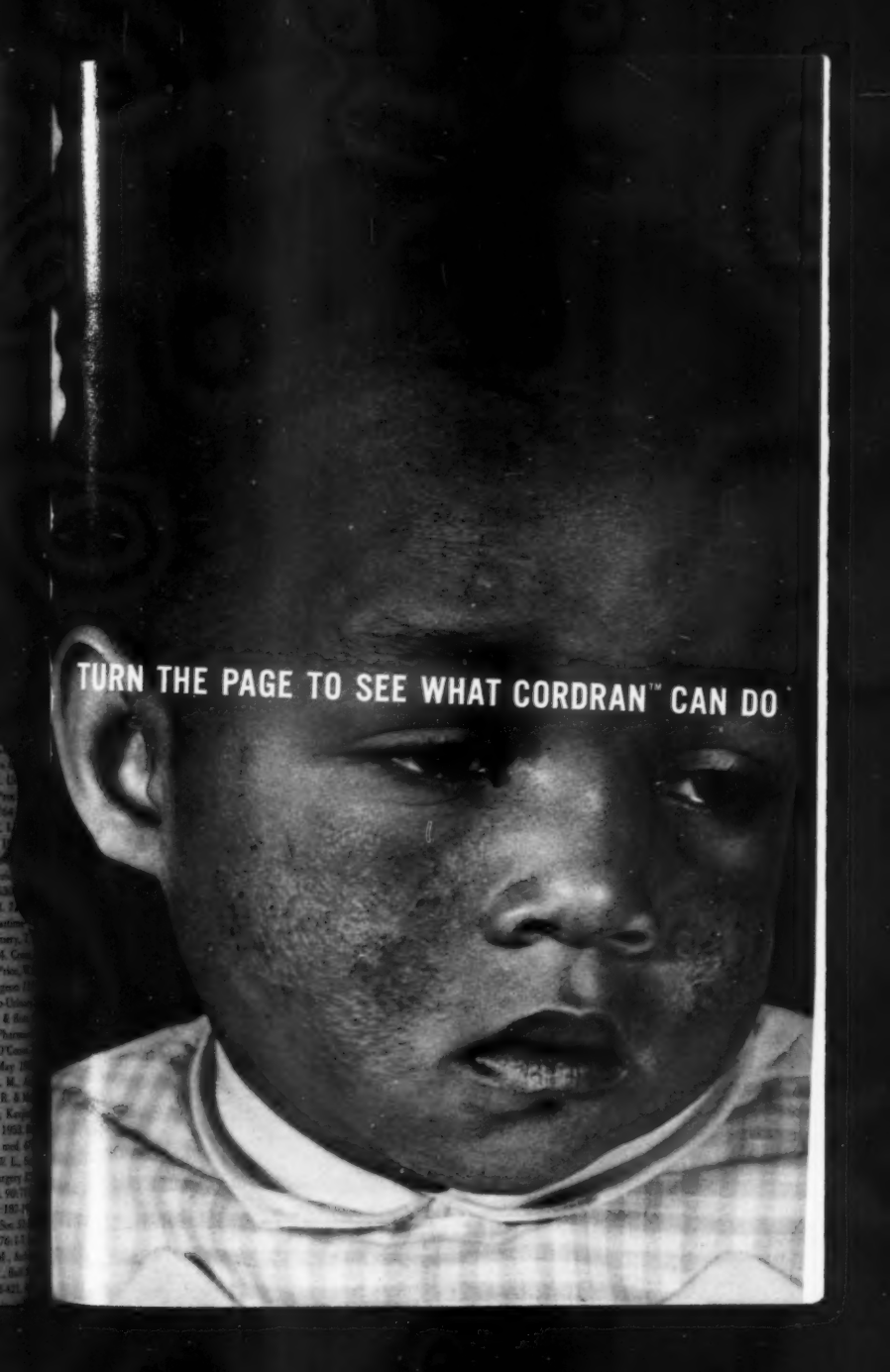
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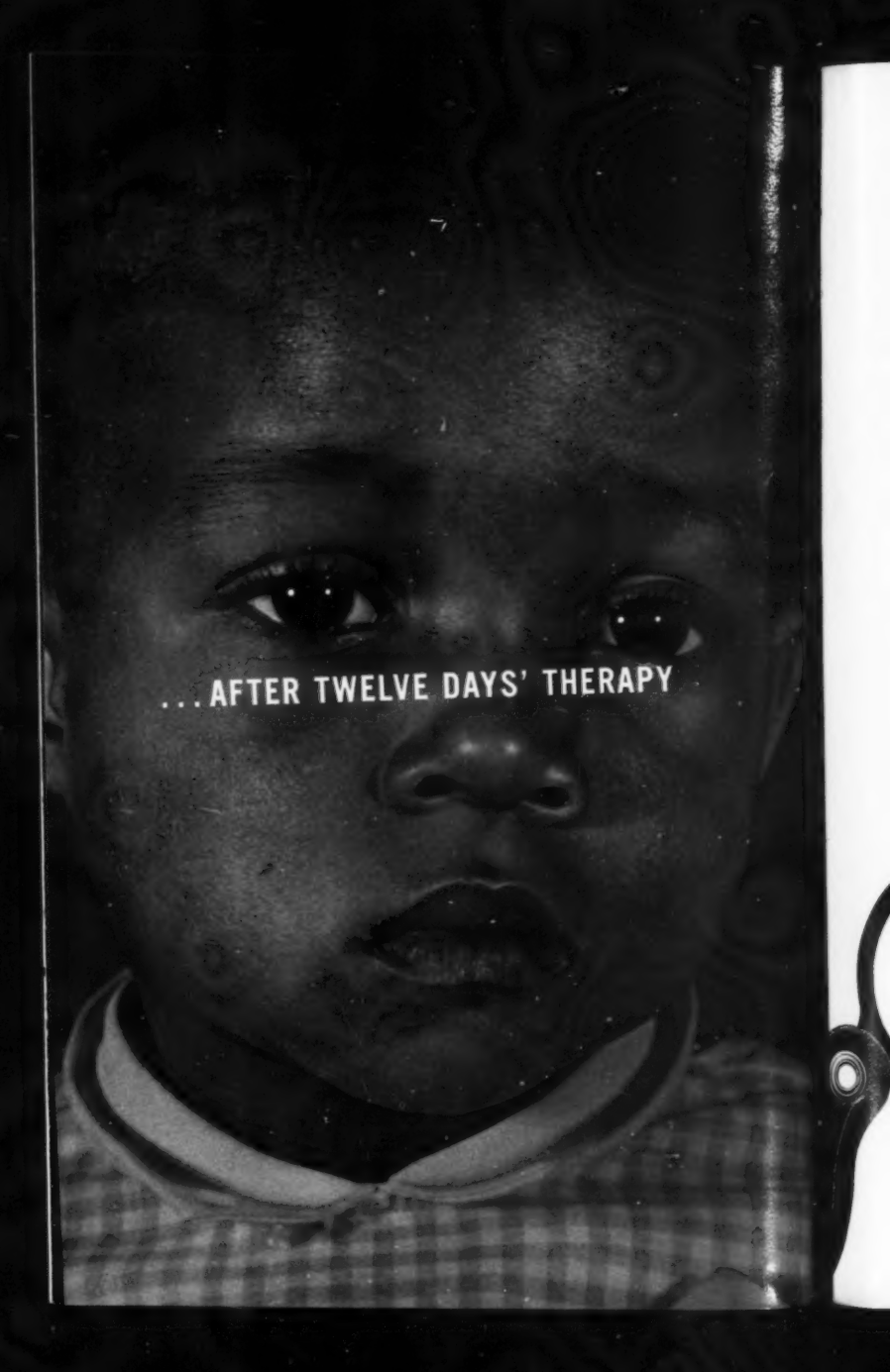
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CORDRAN™

provides effective antipruritic and anti-inflammatory activity

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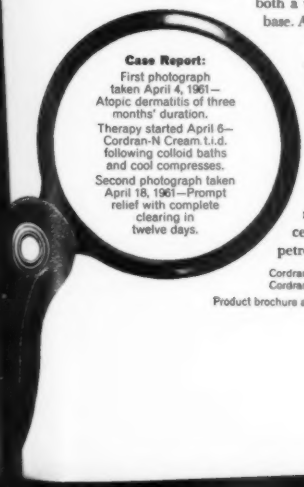
Cordran-N combines Cordran and the wide-spectrum antibiotic, neomycin. It is particularly useful in dermatoses complicated by potential or actual skin infections.



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The cream base is composed of stearic acid, cetyl alcohol, liquid petrolatum, polyoxyl 40 stearate, ethyl parahydroxybenzoate, glycerin, and purified water. The ointment base is composed of white beeswax, cetyl alcohol, sorbitan sesquioleate, and white petrolatum.

Cordran™ (flurandrenolone, Lilly)
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FLORIDA BOARD ELIGIBLE INTERNIST to associate with six-man specialty group, all certified; excellent academic stimulus; fine financial consideration; modern medical center building with all facilities; gastroenterology training desirable. Write: Box 1261, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

DUE TO EXPANSION THE SOUTHERN CALIfornia Permanente Medical Group will need general practitioners and specialists in all fields immediately and throughout 1962; representatives will be available for personal interviews in various locations in early spring. For further details, please write Raymond M. Kay, M.D., Medical Director, 130 North LaCienega Boulevard, Los Angeles 48, California.

GENERAL PRACTITIONER—WITH A GROUP; hospital in same town; personal interview necessary; recent American graduate preferred. Write: Beebe Clinic, Inc., Box 18, Lewes, Delaware.

WANTED: PSYCHIATRIST for modern 1000-bed NP hospital; Board certified or Board eligible preferred; active research program; one-half hour from metropolitan Boston; opportunities for academic appointment with leading medical school; salary range for staff physicians to $15,030, depending upon qualifications; 15% additional if Board certified (not to exceed $17,200). Write to: Chief of Staff, VA Hospital, Brockton, Massachusetts.

WANTED — PHYSICIANS — for full-time appointments in group practice setting, giving general medical care in cooperation with full-time certified specialists in program of 10 Miners Memorial Hospitals; opportunity to develop specialty interest; minimum starting compensation at the rate of $12,000 per year—progressive pay scale; for January or July, 1962; internship, U.S. citizenship and eligibility for licensure in Kentucky, Virginia or West Virginia required. For details address: The Clinical Director, Miners Memorial Hospital Association, 1427 Eye Street, N.W., Washington 5, D. C.

GENERAL PRACTITIONERS WANTED — four communities, 25,000 people, 15 miles west of Cleveland; population booming; good schools, churches, shopping and recreational centers; adequate housing; active and friendly medical staffs and societies; new modern 300-bed hospital 7 miles away; another similar one 15 miles away; and another 150-bed circular progressive-care hospital in blueprint stage after voters approve funds for its construction; parties interested may be able to associate with or form partnerships with present practitioners. Offices available—new modern, air-conditioned, 8-unit office building ready for occupancy. Building is located on 8 acre parcel of land—3 units available. Write to: John P. Jasko, M.D., 33201 Lake Road, Avon Lake, Ohio. Phone: Webster 3-5117.

PRINTING

GENERAL PRACTITIONER—Family practice; no OB; eventual partnership; excellent office and hospital facilities; suburban community in outskirts of Cincinnati, Ohio. Contact personnel department, Clayton L. Scroggins Associates, 141 West McMillan Street, Cincinnati 19, Ohio—No commission.

NEBRASKA—GENERAL PRACTITIONER, take over county seat towns' practice; modern air-conditioned equipped 12-room clinic; county population 8500; gross $49,000; hospital 10 minutes. For details, write: D. R. Marples, M.D., Nelson.

NEEDED — THREE FAMILY DOCTORS: population 11,000, drawing area 25,000; modern equipped 70-bed hospital; lake and recreational area nearby; privileges in OB. general surgery and anesthesia granted if qualified; several physicians retiring; immediate; excellent opportunities. Write references: Ronald Strand, Administrator, Twin City Hospital, Dennison, Ohio.

INTERNIST AND PEDIATRICIAN for association with established multi-specialty group in Detroit; $16,000—$18,000 first year with annual increases. Write: Box 6112, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

GENERAL PRACTITIONER — prefer internal medicine or similar post-graduate training. Write to: Heffner Medical Group, 935 South Gilbert, Anaheim, California.

E.N.T. SPECIALIST WANTED. Two-man department in well established, expanding 21-man group located in excellent hospital; Board eligible or certified; good salary for two years leading to partnership. Midwest. Apply: Box No. 6205, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

SOUTHERN CALIFORNIA—7-man group has openings for well qualified general practitioner or pediatrician or internist and obstetrician-gynecologists; young men with service completed preferred; salary approximately one year, then partnership; opportunity to make above average income. Contact: Manager, Desert Medical Group, 471 Main Street, El Centro, California.

MD ANESTHETIST—FULL-TIME POSITION in approved general hospital to supervise and coordinate anesthesia department, direct nurse anesthetists, interns and resident physicians; active surgery department with 5000 procedures annually; must possess valid California MD license, be diplomate of American Board of Anesthesiology or have satisfactorily completed approved anesthesia residency within last 5 years; employee benefits include paid sick leave, vacation, retirement; annual salary $15,984. Contact: Administrator, Kern General Hospital, Bakersfield, California.

GENERAL PRACTITIONER—opening for young doctor; excellent opportunity, lead to full partnership; well equipped clinic, nice clientele, pleasant climate, near Rose Bowl, La Canada Medical Center, 1311 Foothill Boulevard, La Canada, California.

OLAR MAN BOARD OR QUALIFIED. Twenty miles New York City; outstanding opportunity to associate with six other Board men in other fields. Start February or July. Reply: Box 1265, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

NEEDED ASSOCIATE—in General Practice; progressive midwestern community with excellent hospital facilities; nice to live and work. Please write to: Courtney W. Anderson, M.D., Canton, South Dakota.

PEDIATRICIAN—SAN DIEGO, CALIFORNIA; Board certified or eligible, to join two-man department of established 10-man specialty group; salary first year, then partnership. Smith-Hanna Medical Clinic, 3939 Iowa Street, San Diego 4, California.

ASSOCIATE WANTED—In General Practice, an established practice in a town of 2500 near Kansas City, Missouri, with a new office building to be completed about October 15, 1961; plans for partnership agreement when mutually desired. Contact: A. W. Eklund, M.D., Pleasant Hill, Missouri for details.

GENERAL PRACTITIONER — to join medical staff of successful Michigan mining company, summer-winter resort area. Office, staff, modern 21-bed hospital provided; salary, liberal fringe benefits, excellent opportunity to develop private practice; Michigan license or eligibility required. Box 1269, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

RESEARCH PHYSICIAN

IMMEDIATE VACANCY RESEARCH INVESTIgator, preferably young MD who has just completed formal required residency training any specialty, for full-time position evaluation of data cancer chemotherapy; salary $10,635. Further details, apply: Chief of Staff, VA Hospital. Long Beach, California.

HOUSE PHYSICIAN

HOUSE PHYSICIAN: immediate openings for American Medical School graduates, who have completed at least one year's approved internship and are licensed in Ohio (or are eligible for licensure by reciprocity), to serve as House Physicians in 300-bed general hospital; remuneration $8000 per contract year plus maintenance. Apply: Assistant Director, Lima Memorial Hospital, Lima, Ohio. Limited number of appointments available.

IMMEDIATE OPENINGS FOR HOUSE OFFICER in 260-bed hospital; salary open, with or without maintenance; state licensure or ECFMG qualification required. Write to: Superintendent, Camden-Clark Memorial Hospital, Parkersburg, West Virginia.

STAFF PHYSICIAN

PHYSICIAN: One staff physician vacancy available on a 350-bed medical service and one vacancy available on a 225-bed geriatrics service; salary from $10,635 up to $17,000 per annum, depending upon qualifications and experience; residency training, affiliated with George Washington University School of Medicine; research opportunities in collaboration with five research laboratories within the hospital; living quarters available on station at moderate rate; civil service retirement; vacation and sick leave; State Board license required. Address inquiries to the Director, VA Center, Martinsburg, West Virginia.

FELLOWSHIPS

ANESTHESIOLOGY FELLOWSHIP — post-residency program leading to Ph.D. in a basic science; one to three years; American graduates. Write: Louis R. Orkin, M.D., Albert Einstein College of Medicine, New York 61, New York.

ADOLESCENT CLINIC FELLOWSHIP in San Francisco; third-year level; for internal medicine or pediatrics trainees. Active service; $5000 per year. Reply to: John J. Piel, M.D., Children's Hospital, 3700 California Street, San Francisco, California.

FOR SALE OR RENT

NEW JERSEY — OFFICE-HOME FOR SALE (practice included); ideal for starting MD; new home, office, equipment; excellent practice; will introduce; excellent location; split level 11 rooms; street level office. Write: Joseph Uhrik, M.D., 123 Main Street, Metuchen.

OVERSEAS TRAINING

UNIVERSITY OF OSLO INTERNATIONAL Summer School—offers for 3rd time: medical care and public health services in Norway; planned for physicians, dentists, health administrators, nurses, social workers; (registration limited) June 30 to August 10, 1962. Write: Oslo Summer School Admissions Office, Northfield, Minnesota.

RESIDENTS WANTED

APPROVED 2-YEAR RESIDENCY IN PATHOlogic anatomy beginning July 1, 1961. Monthly stipends $400-$466. Quarters for single residents on Hospital grounds at minimum cost. Active service in 400-bed general hospital serving 8000 mental patients; affiliation in Pediatric and Perinatal pathology; Armed Forces Institutes of Pathology and National Institutes of Health educational facilities available; two full-time certified pathologists conduct training program. Research opportunities; air-conditioned animal experimental laboratory. Strong neuropathology department with full-time neuropathologist and active research program. Clinical Laboratory and Diagnostic radio isotope program directed by full-time clinical pathologist. Write: Superintendent, Saint Elizabeth's Hospital, Washington 20, D. C.

ANESTHESIOLOGY, NEW RESIDENCIES AND Fellowships—at the University of Pittsburgh, School of Medicine. (Health Center Hospitals: Presbyterian, Children's, Magee, Veterans, Eye and Ear). All types of surgery available. Training in essentially all anesthetic techniques and consultation activities of the anesthesiologist. Write: Peter Safar, M.D., Professor and Chairman, Department of Anesthesiology, University of Pittsburgh, School of Medicine, Pittsburgh 13, Pennsylvania.

RADIOLOGY RESIDENCY — Three-year approved program in 419 bed general hospital, University affiliated; training in diagnosis, therapy and nuclear medicine. Stipend per month: 1st year—$175; 2nd year—$200, 3rd year—$225, plus an additional $75 monthly for married house staff. Contact: T. F VanZandt, M.D., Department of Radiology, Rochester General Hospital, 501 West Main Street, Rochester 8, New York.

RESIDENCIES—Internal Medicine and General Surgery, fully approved; 377-bed GM&S Veterans Administration Hospital; affiliated with the Johns Hopkins and University of Maryland Medical Schools; salary $3495 to $5965; U.S.A. citizenship required. Address inquiries to: Director, Professional Services, Veterans Administration Hospital, Fort Howard, Maryland.

RECORDS

VACANCIES for General Surgery Residents 1st and 2nd year approved 4-year residency; citizenship required. Write: Box 6201, c/o Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

ANESTHESIOLOGY RESIDENCY — AMA and American Board approved 2-year program for graduates of accredited medical schools; maintenance and stipend. Apply to: Director of Medical Education, Swedish Hospital, Seattle, Washington.

PSYCHIATRIC RESIDENCIES — Hospital with large medical staff offers fully accredited three-year training program beginning July 1, 1962 for men and women graduates of North American Medical Schools desiring certification in psychiatry; includes post-graduate course, guest lectures, training in modern therapeutic procedures and supervised work in mental hygiene clinics; liberal salary includes family maintenance. Apply to: Robert H. Israel, M.D., Superintendent, Warren State Hospital, Warren, Pennsylvania.

MEDICAL RESIDENCY AVAILABLE—excellent opportunity for training in well organized approved program; beginning stipend $250 plus full maintenance and rental allowance. Apply: Administrator, St. John's Hospital, Cleveland 2, Ohio.

RESIDENCIES — MENNINGER SCHOOL OF Psychiatry; approved three-year program; balanced clinical and didactic training including psychotherapy and somatic therapies, outpatient and child psychiatry; at VA State and Menninger Hospitals; affiliated with Topeka Institute of Psychoanalysis; five year appointments combining residency and staff experience for Board eligibility available at staff salaries. Write: Registrar, Menninger School of Psychiatry, Topeka, Kansas.

PATHOLOGY RESIDENCY — FOUR YEARS for residents, fully approved for pathological anatomy and clinical pathology, three certified pathologists; surgicals 8000 and autopsies 300; teaching conferences and research facilities available; exchange program with prominent eastern medical school; stipend to $4300. Apply to: Dr. Donald D. Mark, Director of Laboratories, St. Francis Hospital, Peoria, Illinois.

PSYCHIATRIC RESIDENTS — VA Hospital, Sepulveda, California, near Los Angeles. Affiliated with 3 medical schools; 956-beds, predominately psychiatric. Approved 3-years. Stipend (non-career) $3495 to $4475; (career) $6995 to $10,635. Must be a citizen. For information write to: Max Unger, M.D., Associate Chief of Staff, VA Hospital, Sepulveda, California.

PATHOLOGY RESIDENT—fully approved program; active 450-bed hospital; 2 Board certified pathologists in full-time attendance; over 8000 surgicals; over 50 percent autopsies; full clinical pathological service in new laboratory wing. Apply: Dr. Philip Wasserman, Director of Clinical Laboratories, The Jewish Hospital, Cincinnati 29, Ohio.

PSYCHIATRIC RESIDENCIES — Buffalo, New York; Edward J. Meyer Memorial Hospital, University of Buffalo School of Medicine; full 3-year approved training in psychiatric division of a large general hospital with inpatient and outpatient training; comprehensive training in analytically oriented dynamic psychiatry, rotation through neurology service, psychosomatic medicine, child psychiatry and forensic psychiatry with individual supervision; residents are given teaching and research opportunities; salaries: $3875 first year, $4575 second year, $5275 third year with board and laundry. The University of Buffalo will become part of the University of State of New York in 1962 with marked expansion of its facilities, personnel and opportunities for academic careers. Write to: Dr. S. Mouchly Small, Professor of Psychiatry, 462 Grider Street, Buffalo 15, New York.

ANESTHESIA RESIDENCIES: announcing 3 appointments now and 3 appointments for July 1, 1962 for residency in anesthesiology, in approved department of anesthesia, University Hospitals of Cleveland, Ohio, for graduates of approved medical schools or ECFMG-qualified applicants. Further information may be obtained by writing Robert A. Hingston, M.D., Director of Anesthesia, University Hospitals of Cleveland and Professor of Anesthesia, Western Reserve University, School of Medicine, 2065 Adelbert Road, Cleveland 6, Ohio.

PATHOLOGY RESIDENCIES AVAILABLE — fully approved 4 years (PA-CP); 700-bed hospital; 250 autopsies, 8000 surgicals, 250,000 clinical laboratory tests; staff of 3 full-time Board certified pathologists; full-time chemist; full-time bacteriologist; full-time director of medical education; radioisotopes laboratory; electron microscope available; full maintenance (room and board) plus stipend from $200 monthly on. Apply: Leo Lowbeer, M.D., Hillcrest Medical Center, Tulsa, Oklahoma.

GENERAL SURGERY RESIDENCY AVAILABLE —1st and 2nd years; 4-year plan approved; 600-bed hospital; average 8000 inpatients. Write to: Superintendent, Allegheny General Hospital, Pittsburgh 12, Pennsylvania.

VACANCY FOR FIRST-YEAR UROLOGICAL resident or first-year general surgical resident to qualify for urology. Affiliated program. Apply Box 9112, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

IOWA CITY — PSYCHIATRY RESIDENCIES: Department of Psychiatry, University of Iowa Medical Center; 3 years approved training; broad experience with adults and children; community services inpatient and outpatient training and all types of psychiatric therapy under close supervision; master of science program for residents interested in academic and research careers; salary levels $4350 to $5000; also available "package plan" covering 5 years with periods of rotation in the Department of Psychiatry and the State Mental Hospitals and Schools for Mentally defectives; salary levels $7350 to $13,200. For information and application blanks write: Paul E. Huston, M.D., Chairman, Department of Psychiatry, 500 Newton Road, Iowa City, Iowa.

INTERNSHIPS AND GENERAL PRACTICE Residencies in busy approved hospital; Internships straight or rotating; Two-year G.P. residencies and a three-year residency in Obstetrics-Gynecology; available July 1st, 1962; well organized teaching program including regular educational rounds and departmental meetings; apartments for married house staff members. Write: Director of Medical Education, MacNeal Memorial Hospital, 3249 South Oak Park Avenue, Berwyn, Illinois.

SURGICAL RESIDENTS—Unapproved, 1st and 2nd years; modern hospital, Washington, D.C. area; liberal stipend. Contact: Administrator, Suburban Hospital, Bethesda, Maryland.

WANTED—TWO PEDIATRIC RESIDENTS
317-bed general hospital; service being developed for approval; particulars will be supplied on request; personal interview desirable; must have passed ECFMG examination. Write: Dr. Herman Rosenblum, Director of Pediatrics, Wilmington General Hospital, Wilmington 5, Delaware.

PATHOLOGY RESIDENCIES — full American Board approved training program at university teaching hospital; applicants must have ECFMG certificate. Apply to: Director of Pathology, Western Reserve University at Cleveland Metropolitan General Hospital, 3395 Scranton Road, Cleveland 9, Ohio.

RADIOLOGY—FIRST-YEAR RESIDENCY: 3-year approved program in diagnosis, therapy and isotopes; full-time staff of 5 radiologists; 6 residents; base hospital of The Chicago Medical School. Apply: J. Nadelhaft, M.D., Chairman, Department of Radiology, Mount Sinai Hospital, Chicago 8, Illinois.

INTERNAL MEDICINE RESIDENCY — vacancy for one first and one second year resident, January 1962; approved three-year program; 300-bed community hospital; facilities include 15% charity load; active outpatient department; home care program; ECFMG certificate required for foreign medical graduates; personal interview mandatory; additional information provided on request. Apply: Director Medical Education, Memorial Hospital, Charleston 4, West Virginia.

APPROVED RESIDENCIES IN MEDICINE in cancer research hospital. Excellent facilities for clinical training. Participate in research in Hematology, Endocrinology, Metabolism, Cancer Chemotherapy. Internship one prior year residency in medicine in U.S.A. ECFMG qualified and interview required. Salary: $4,560-$5,280. Write: Chairman, Medical Residency Committee, Roswell Park Memorial Institute, Buffalo, New York.

PHYSICAL MEDICINE & REHABILITATION Residencies—Three-year approved program; starting dates open; new 516-bed general medical and surgical hospital (downtown Chicago); affiliated with Northwestern University Medical School and the Rehabilitation Institute of Chicago; teaching and research opportunities; regular residencies $3495-$4475; career residencies $7560-$10,635; U.S. citizen. Write to: Louis B. Newman, M.E., M.D., Chief, Physical Medicine and Rehabilitation Service, Veterans Administration Research Hospital, 333 East Huron Street, Chicago 11, Illinois.

WANTED: NOW ACCEPTING APPLICATIONS for residents who have completed three years of approved psychiatric training and wish to obtain credit in 4th and 5th year in preparation for Board examinations in dynamically oriented 1000-bed N.P. Hospital approved for 3-year psychiatric residency program; affiliated with department of psychiatry and neurology. University of Iowa Medical Center; after completing Board eligibility, limited staff openings; must obtain regular Iowa license, and be a graduate of approved school; well organized inpatient, adult and children services, and expanding outpatient department; beginning stipend $12,600 to $13,500; for Board eligible to $15,600; Board certified to $22,800; immediate openings because of expanding program. Write: S. M. Korson, M.D., Superintendent, Mental Health Institute, Independence, Iowa.

INTERNAL MEDICINE RESIDENCY available; 3-year plan approved; 600-bed hospital, clinical teaching program; third-year may have sub-specialty. Write: Superintendent, Allegheny General Hospital, Pittsburgh 12, Pennsylvania.

OB-GYN RESIDENCY — salary $425-$475 per month; large charity service; supervised by certified instructors; applicant must be capable of teaching interns and general practice residents. Apply: Kenneth E. McIntyre, M.D., Director of Medical Education, 1000 West Moreno, Pensacola, Florida.

FILING SUPPLIES

RESIDENCIES: Applications considered for July 1, 1962 appointment in the approved residency training programs in internal medicine, pathology, pediatrics, and surgery, in hospitals of the Miners Memorial Hospital Association in Kentucky and West Virginia; large outpatient departments; good clinical material; full-time staffs include clinical specialties as well as pathology, radiology, anesthesiology and physical medicine; beginning stipends $4800 if single, $5400 if married; for U.S. graduates who are eligible for licensure in Kentucky and West Virginia there is also possibility of individually arranged career residency appointments in which residency appointments are matched by full-time practice in MMHA hospitals on a year-for-year basis; career residents receive higher stipends during their residency years in return for the matching full-time practice. For information, write to: The Clinical Director, Miners Memorial Hospital Association, 1427 Eye Street, N.W., Washington 5, D. C.

PATHOLOGY RESIDENCY AVAILABLE January and July, 1962; 4-year approved A.P. and C.P. 1400-bed active general hospital servicing large population; five full-time staff pathologists plus seven consultants; spacious new quarters; well-equipped clinical laboratories with exceptionally well-qualified teaching personnel; full 50% of time devoted to clinical pathology; well integrated and organized training program; affiliated with University of California Medical School, Los Angeles County Hospital and St. Johns Hospital of Santa Monica; situated in fine residential area in cool, smog-free West Los Angeles close to University of California Campus, Malibu, Santa Monica and other beach resorts; career residencies available; starting salary $7000 to $10,000; regular residencies, $3495 to $5315. Apply to: B. G. Fishkin, M.D., Chief of Laboratory Service, VA Center, Wilshire & Sawtelle Boulevards, Los Angeles 25, California.

ORTHOPEDIC SURGERY RESIDENCY: 3-year program; approval pending; general hospital; 527-adult beds; 43-pediatric beds; 56-bassinets; plus affiliation with St. Charles Children's Hospital; 50-beds; active clinics. Address inquiries to: Sidney S. Gaynor, M.D., Lenox Hill Hospital, 100 East 77th Street, New York 21, New York.

ANESTHESIOLOGY—approved two-year residency; wide clinical experience and active didactic program; stipend $4800 to $6000 per year; appointment available for January 1, 1962 and July 1, 1962. For further information, write: Oral B. Crawford, M.D., St. John's Hospital, Springfield, Missouri.

RESIDENCIES — AVAILABLE NOW; $350 per month, full maintenance, 2 weeks vacation, uniforms supplied; ECFMG standard or temporary certificate required; residencies not approved. Apply: Christ Hospital, 176 Palisade Avenue, Jersey City, New Jersey.

PATHOLOGY RESIDENCIES: 974-bed private general hospital with progressive teaching and research programs. Fully approved for four years in PA and CP; four certified pathologists; surgicals—14,740; autopsies 428; total exams.—1,127,965; Indiana University teaching conferences and appointments available; stipend first year $4320 (plus dependent child allowances) with annual increases and opportunity for extra income; housing on premises available; Indiana licensure or permit is necessary. Apply to: Dr. Lester H. Hoyt, Director of Clinical Laboratories, Methodist Hospital, Indianapolis 7, Indiana.

RADIOLOGY RESIDENCY 1st year level and residency or fellowship at 2nd year level available January 1, 1962; stipend, 1st year is $3000 increasing $1000 yearly. Candidates must be eligible for Georgia license. R. Wigh, M.D., Department of Radiology, Medical College of Georgia, Augusta, Georgia.

INTERNSHIPS — AVAILABLE NOW; approved rotating internship; $250 per month, full maintenance; 2 weeks vacation; uniforms supplied; ECFMG standard or temporary certificate required. Apply: Christ Hospital, 176 Palisade Avenue, Jersey City, New Jersey.

RESIDENCIES IN PSYCHIATRY available at Veterans Administration Hospital, Brockton, Massachusetts; approved for three-year psychiatric residency training; the comprehensive program of dynamically oriented psychiatry includes hospital psychiatry, mental hygiene clinic experience, neurology and child psychiatry. Residency program under supervision of Deans Subcommittee for Neuropsychiatry of Boston University, Harvard and Tufts Medical Schools. Graduates of approved U.S. or Canadian Medical Schools eligible. Stipend: Regular $3495 to $4475; Career $6995 to $10,635. Apply to: Chief of Staff, VA Hospital, Brockton, Massachusetts.

FIRST-YEAR SURGICAL RESIDENCY available: 350-bed general hospital southeast coast of Florida; salary $450 plus room, board, laundry for single residents; foreign graduates must have passed ECFMG examination or hold temporary certificate. For further information write: Administrator, Broward General Hospital, Fort Lauderdale, Florida.

PATHOLOGY RESIDENCIES FELLOWSHIPS—available Fall, Winter, July 1962; expanding program, PA and CP; stipends begin at $300 month. Write: Dr. W. S. Albrink, West Virginia University Medical School, Morgantown, West Virginia for further information.

BERKELEY — APPROVED PSYCHIATRIC RESIDENCY, 1st, 2nd and 3rd year level; NIMH training stipend; 49-bed psychiatric service in 287-bed non-profit hospital and rehabilitation center; adjacent to university; active outpatient clinic for adults and children; didactic clinical seminars; individual supervision. Commences July 1, 1962 or thereafter. Apply: Felix H. Ocko, M.D., Director, Psychiatric Training, Herrick Memorial Hospital, 2001 Dwight Way, Berkeley 4, California.

TWO-YEAR RESIDENCY—in general practice; approved program; July and January appointments; 220-bed hospital; $80 per week plus room. Write to: Woonsocket Hospital, Woonsocket, Rhode Island.

PATHOLOGY RESIDENCY — fully approved 4-years anatomical and clinical pathology; unusual facilities for animal research; U.S. graduate or, if foreign trained, mastery of English. Augustana Hospital, George Milles, M.D., 411 West Dickens Street, Chicago 14, Illinois.

INTERNSHIPS AVAILABLE — fully approved 500-bed hospital; completely new surgery, x-ray, outpatient department; foreign applicants must have ECFMG certification; stipend $200 per month, plus maintenance. Methodist Hospital, Peoria, Illinois.

ANESTHESIOLOGY RESIDENCY—2 or 3 years; research opportunities; complete clinical and didactic program; stipend: $340-$450 month plus maintenance; 6 full-time staff anesthesiologists. D. W. Eastwood, M.D., University of Virginia Hospital, Charlottesville, Virginia.

VIRGINIA—PROGRESSIVE PSYCHIATRIC Hospital: Fully approved for two years training program; psychodynamically oriented; emphasizes individual supervision and provides broad experience in psychotherapy of inpatients and outpatients. Multidiscipline active affiliation with Medical College of Virginia; residents participate in teaching and research; exchange program; salary $8040. Send full resume in first letter to Theodore G. Denton, M.D., Superintendent, Central State Hospital, Petersburg, Virginia.

RESIDENCIES in approved large, general hospital for July 1, 1962; general surgery (one year); general practice (first and second years); obstetrics and gynecology (first, second and third years); monthly stipend: first year $450, second $500, third $550; living accommodations for married house staff also available. Write: Director of Medical Education, MacNeal Memorial Hospital, 3249 Oak Park Avenue, Berwyn, Illinois.

GENERAL PRACTICE RESIDENCIES, also approved internships; excellent teaching program; room, board and uniforms furnished; apartments for married interns and residents; intern stipend begins at $275, resident's stipend, first year, $325. Write: Medical Director, Wheeling Hospital, Wheeling, West Virginia.

ANESTHESIOLOGY RESIDENCY — Board approved 2-year program offering experience, in anesthesia for all types of surgery including cardiovascular and neurosurgery; active didactic program. For details write: George J. Thomas, M.D., Saint Francis General Hospital, Pittsburgh 1, Pennsylvania.

UROLOGY RESIDENCY—fully approved active service; intensive training; $350 per month 1st year, $400, second year; $450, 3rd year; ECFMG required for foreign graduates. Write: Dr. Ralph Landes, Memorial Hospital, Danville, Virginia.

GENERAL PRACTICE RESIDENCY available January 1, 1962 and July 1, 1962 in 240-bed county general hospital, accredited by JCAH: $600 per month, plus attractive 5-room furnished home; must be U.S. citizen. Contact Medical Director, Merced County General Hospital, Merced, California.

RESIDENTS IN PSYCHIATRY — regular or career; approved for three years, available immediately at Veterans Administration Hospital, Augusta, Georgia. Training under the supervision of Deans Committee, Medical College of Georgia. Stipend for regular residents $3495 to $4475; for career residents $6995 to $10,895, depending on clinical experience since graduation from medical school. Must be U.S. citizen. Apply to: Chief of Staff, VA Hospital, Augusta, Georgia.

PATHOLOGY RESIDENCY—July 1, 1962; 4-year approved program, pathologic anatomy and clinical pathology; affiliated, Western Reserve University. Internship, but no previous training in pathology necessary. Apply: Director of Laboratories, Mount Sinai Hospital, University Circle, Cleveland 6, Ohio.

GENERAL PRACTICE RESIDENCY—2 openings in fully approved 2-year general practice residency in modern 250-bed central Pennsylvania hospital; January and July appointments; ECFMG certificate required; remuneration: $4600 plus full maintenance. Write: Resident Committee, Good Samaritan Hospital, Lebanon, Pennsylvania.

PATHOLOGY RESIDENCY—4-year fully approved A.P. and C.P. 280-bed general hospital; 6000 surgicals; 23,000 clinical; 6000 cytological; 140 autopsies (15% medicolegal); two board pathologists, A.P., C.P., F.P.; university affiliation; salary, $275-$350 per month, $75 family allowance; Blue Cross. Apply: Dr. Peter Ladewig, Charleston General Hospital, Charleston, West Virginia.

SURGERY RESIDENCIES, first and second years, available now and July 1, 1962,; fully approved four-year program in active 500-bed general hospital; medical school affiliation; salaries $3495-$5965, citizenship required. Apply to: Chief of Staff, Veterans Administration Consolidated Hospital, Little Rock Division, Little Rock, Arkansas.

PATHOLOGY RESIDENCY — 300-bed cancer hospital and research center approved; excellent teaching program; wealth of neoplastic material; stipend $4285-$5280 yearly, depending on experience. Apply to: John W. Pickren, M.D., Roswell Park Memorial Institute, Buffalo 3, New York.

OPENINGS FOR RESIDENTS IN PSYCHIATRY in 915-bed progressive hospital; three-year approved psychiatric residency through affiliation with Louisiana State University and Tulane University Medical Schools; opportunities for teaching and research; psychoanalysis available in third-year by private arrangement; organized training while living on the beautiful Gulf Coast; starting salaries from $6995 to $10,635, plus many fringe benefits. For information write: Dr. J. T. May, Associate Chief of Staff, VA Hospital, Gulfport, Mississippi.

ANESTHESIOLOGY RESIDENCIES: applications now being considered for first and second year appointments for July 1962; graduates of U.S. medical schools only. Write: Chairman, Department of Anesthesiology, University of Miami School of Medicine, Jackson Memorial Hospital, Miami 36, Florida.

INTERNAL MEDICINE RESIDENCY PROgram; vacancy for first or second year resident at Harlan Memorial Hospital, P.O. Box 960, Harlan, Kentucky; program fully approved; 187-beds; large outpatient service and full-time specialist staff; beginning stipend $4800 if single, $5400 if married. Apply to Chief of Internal Medicine.

MEDICAL EDUCATION PROGRAM ORGANized around bedside teaching, supplemented by clinical, pathologic and radiologic conferences; guided full responsibility of designated patients for both interns and residents; twenty rotating internships; residencies in general surgery, internal medicine, obstetrics - gynecology, orthopedics, pathology, pediatrics, radiology and urology. Financial assistance for long moves, meals, uniforms and laundry are provided; stipend: interns $300, residents $350 and up, per month; adequate housing available. Write: Jack H. Hall, M.D., Methodist Hospital Graduate Medical Center, Indianapolis 7, Indiana.

INTERNAL MEDICINE RESIDENCY PROGRAM —vacancy for 1st or 2nd year resident at Harlan Memorial Hospital; P.O. Box 960, Harlan, Kentucky; program fully approved; 187-beds, large outpatient service and full-time specialist staff; beginning stipend $4800 if single, $5400 if married. Apply to: Chief of Internal Medicine.

GENERAL PRACTICE RESIDENCY—University of Colorado Medical Center; applications now being accepted for July 1, 1962 for a long established two-year general practice residency. For brochure and application forms, write: C. Wesley Eisele, M.D., Associate Dean, University of Colorado, 4200 East Ninth Avenue, Denver 20, Colorado.

CHILD PSYCHIATRY—two-year comprehensive training program; University Hospital inpatient and outpatient service; affiliated residential treatment, juvenile delinquency and other community services; opportunity for research and teaching; salary range $4800-$7000. Write: Raymond Sobel, M.D., Director, Child Psychiatry, Department of Psychiatry, University of Washington, School of Medicine, Seattle 5, Washington.

BOSTON CITY HOSPITAL AND HARVARD Medical School; three second-year Psychiatric residencies and three third-year residencies at Boston City Hospital beginning July, 1962; requisites are one-year of postgraduate medical and psychiatric training to second-year posts and two-years psychiatric training for third-year posts; concurrent appointment as teaching fellow in psychiatry, Harvard Medical School; total salary $3376 per year second year; $4643 third-year and complete maintenance; supervised, dynamically, oriented psychotherapy in outpatient clinic and small inpatient unit for selected cases; consultation service to all departments; the service includes active investigation with the surgical, medical and neurology services, hence the unusually wide selection of case material; residencies are fully accredited and are approved for Exchange Visitor Status. Applicants who are foreign medical graduates must have passed the American Medical Qualification Examination for foreign medical graduates. Applications for residencies beginning July 1, 1963 may also be made at this time. Please apply to Dr. Philip Solomon, Psychiatry Service, Boston City Hospital, Boston 18, Massachusetts, U.S.A.

RESIDENTS WANTED in large eastern chest disease hospital affiliated with medical school. Salary range—$4500 to $6000. Write: Box 6206, Resident Physician, 1447 Northern Boulevard, Manhasset, New York.

APPROVED THREE-YEAR PSYCHIATRIC residencies available July 1, 1962 in fully accredited 480Q-bed modern teaching hospital, 66 miles east of Los Angeles in excellent recreational area; well-rounded program under Chief of Professional Education; rotation through various services; outside applications and after care training included in program; guest lectures; must be graduate of American school and have completed one year approved internship by June 30, 1962 or hold California license; if not American citizen, must hold certificate of intention; three weeks annual vacation; twelve days sick leave; eleven paid holidays; 4-year plan —$5772-$13,200; 5-year plan—$8520-$10,344. For application write: Superintendent, Patton State Hospital, Patton, California.

RESIDENCY IN SURGERY — fully approved three-year program; affiliation with large state hospital. Apply: Director of Medical Education, California Hospital, Los Angeles 15, California.

INTERNAL MEDICINE RESIDENCY—now and beginning July 1962. ECFMG certificate required; excellent teaching program; good pay and conditions. Apply: Jewish Chronic Disease Hospital, 86 East 49th Street, Brooklyn 3, New York.

GENERAL PRACTICE RESIDENCY, approved program, two-year appointments available January 1, 1962, July 1, 1962 and January 1, 1963. 271-bed general hospital; free bed program; medical director; only resident program offered; modern hospital. Please write to: Chairman of Residency Program—Lutheran Deaconess Hospital, 2315 - 14th Avenue South, Minneapolis 4, Minnesota.

PATHOLOGY RESIDENCY—available January 1, 1962 and July 1, 1962 in fully approved 4-year program (PA-CP) under supervision of three university affiliated pathologists; 370-bed hospital; 250 autopsies; 4800 surgicals; 220,000 clinical laboratory examinations; full-time chemist, full-time microbiologist; stipend for first year $4800; increases annually. Apply: Director of Laboratories, St. Vincent's Hospital, Bridgeport, Connecticut.

PATHOLOGY RESIDENCIES: fully approved four year combined pathologic anatomy and clinical pathology program; 985-bed general hospital; 3 full-time certified pathologists; 1 physician exfoliative cytologist; 1 PhD. biochemist; 5 M.S. and 32 M.T. (ASCP) technologists. All usual clinical pathology divisions including virus, tissue culture, isotope and immuno-hematology laboratories, 538 autopsies, 554,285 clinical pathology tests, 8153 surgical pathology examinations and 6048 transfusions performed during 1960. Approved School of Medical Technology and Cytotechnology. Active research programs with grants. Stipend: 1st year—$275 per month including full maintenance for single residents and $275 per month plus furnished house (2-3 bedroom, utilities free) and moving expenses up to $200 for married residents. Increments $25 per month after each year of service. Paid expenses to regional and national medical meetings. Personal interviews at our expense arranged. Apply: Arthur E. Rappoport, M.D., Director of Laboratories, The Youngstown Hospital Association, Youngstown 1, Ohio.

RHODESIA—RESIDENT OR ASSISTANT RESIdent for neurosurgical unit; European and African Hospitals, Salisbury: 1-year commencing November; £60 monthly; part fare to Rhodesia paid; excellent opportunity varied neurosurgical training; Director of Service American Board certified. Write: Laurence F. Levy, F.A.C.S., 52 Gaines Avenue, Salisbury, Southern Rhodesia.

RESIDENCIES, FELLOWSHIPS AND INTERNships in Pathology at Bronx Municipal Hospital Center—Albert Einstein College of Medicine, New York City. Approved for 4 years in PA and CP; salary $3000-$6000; openings in January and July. Apply: Dr. Alfred Angrist, Department of Pathology, Albert Einstein College of Medicine, 1300 Morris Park Avenue, New York 61, New York.

APPROVED RESIDENCIES IN MEDICINE in cancer research hospital; excellent facilities for clinical training; participate in research in hematology, endocrinology, metabolism, cancer chemotherapy; internship one prior year residency in medicine in U.S.A.; ECFMG qualified and interview required; salary: $4560-$5280. Write: Chairman, Medical Residency Committee, Roswell Park Memorial Institute, Buffalo, New York.

EMORY UNIVERSITY SCHOOL OF MEDICINE —Pathology residents; applications are invited for training in anatomic and clinical pathology; program fully approved by American Board of Pathology with appropriate teaching appointments at the university; beginning salary $235 per month with partial maintenance. Apply to: Department of Pathology, Emory University School of Medicine, Atlanta 22, Georgia.

PSYCHIATRY RESIDENCY—University residency affiliated with a public general hospital and the Houston State Psychiatric Institute for Research and Training; fully accredited for four years adult and child psychiatry; salary $4500-$7000. Apply to Dr. W. T. Lhamon, Chairman, Department of Psychiatry, Baylor University College of Medicine, Houston 25, Texas.

ANESTHESIA RESIDENCIES: announcing 3 appointments now and 3 appointments for July 1, 1962 for residency in anesthesiology in approved department of anesthesia, University Hospitals of Cleveland, Ohio, for graduates of approved medical schools or ECFMG-qualified applicants. Further information may be obtained by writing Robert A. Hingson, M.D., Director of Anesthesia, University Hospitals of Cleveland and Professor of Anesthesia, Western Reserve University School of Medicine, 2065 Adelbert Road, Cleveland 6, Ohio.

APPROVED RESIDENCIES—INTERNAL MEDIcine available for 1962: 820-bed VA Hospital, 3-4 year program; Ohio State University Medical School affiliation and supervision; sub-specialties under full-time Board certified specialists; salary $3495-$5315; U. S. citizenship or graduation from approved U.S. or Canadian Medical School. Write: Chief, Medical Service, Veterans Administration Center, Dayton, Ohio.

GENERAL SURGERY RESIDENCY—due to unexpected vacancy; available at 1st year level for pre-specialty training or full program in 4-year approved residency; U.S. citizenship required. Apply: Chief Surgical Service, Veterans Administration Hospital, East Orange, New Jersey.

PSYCHIATRY—BARNES HOSPITAL; 3-YEAR approval; university hospital covering inpatient and outpatient areas, supervised psychotherapy, psychosomatic service, child guidance clinic, training in neurology; much emphasis on research and academic medicine as well as clinical psychiatry; special training stipends available for qualified candidates. Write: E. F. Gildea, M.D., Department of Psychiatry and Neurology, Washington University Medical School, St. Louis 10, Missouri.

RESIDENCY IN OBSTETRICS-GYNECOLOGY—fully approved three-year program; affiliation with large state hospital. Apply: Director of Medical Education, California Hospital, Los Angeles 15, California.

FLORIDA — COORDINATED RESIDENCIES in Medicine, pediatrics, Ob-Gyn; firm educational program including coordinated libraries and research laboratories; unique television teaching. Apply: Executive Director, Jacksonville Hospitals Educational Program, Inc., 2000 Jefferson Street, Jacksonville 6, Florida.

INTERNSHIPS: 215-bed voluntary general hospital now accepting applications for approved rotating internships; all attendings, diplomates or fellows, heavy emphasis on teaching program; stipend $300 per month with full maintenance. Apply: Administrator, Unity Hospital, 1545 St. Johns Place, Brooklyn, New York.

GENERAL PRACTICE Residencies available—3-year approved program; 176-bed general hospital; university town active teaching program; start $350 month, plus complete maintenance; limited number of positions available. Address all inquiries immediately to: John W. Kauffman, Administrator, Princeton Hospital, Princeton, New Jersey.

PEDIATRIC RESIDENCY—fully approved two-year program; active outpatient department, special clinics; 289-bed general hospital; 46 pediatric beds; 34 bassinets; available immediately. Apply: Director Medical Education, Memorial Hospital, Charleston, West Virginia.

MINNESOTA — PSYCHIATRIC RESIDENCIES: available October 1, 1961 in 5-year state program in collaboration with University of Minnesota and Mayo Foundation; stipend (tax free); $8000-$8500-$9000 for training years; service years in hospital system or community mental health program. Write: David Vail, M.D., Minnesota Department of Public Welfare, St. Paul, Minnesota.

PATHOLOGY RESIDENTS—TWO; fully approved four-year residency program morbid anatomy and clinical pathology; 500-bed teaching hospital, university affiliated; two full-time pathologists; biochemist-endocrinologist and hematologist; stipend $275-$350 per month; finest living accommodations in new Colonnade Apartments; married men receive rent allowance and extra stipend for each child. Contact: Salvatore J. Rose, M.D., Director of Surgical Pathology, St. Michael Hospital, 306 High Street, Newark 2, New Jersey.

PATHOLOGY—1ST YEAR RESIDENCY available immediately; 4-year approval; southeastern Pennsylvania area, 90 miles from New York City, 50 miles from Philadelphia; 510-bed hospital; 2 pathologists; biochemist; 265 autopsies; 5500 surgical specimens; 233,000 clinical laboratory procedures; stipend: $260 per month plus $100 to married residents living out. Contact: E. J. Benz, M.D., Pathology Department, St. Luke's Hospital, Bethlehem, Pennsylvania.

APPROVED 3-YEAR RESIDENCY IN RADIology at 500-bed general medical and surgical hospital; large outpatient service in medical center; affiliated with University of Illinois for supplemental therapy and Children's Memorial Hospital for pediatric radiology; U.S. citizenship and license in any state required; also ECFMG if foreign graduate; salary $3495 to $4475 per year. Apply: Director, Veterans Administration Hospital, 820 South Damen Avenue, Chicago 12, Illinois.

FULLY APPROVED THREE-YEAR PSYCHIATRIC Residency: Deans' Committee supervised didactic—clinical program on 105-bed psychiatric service in 500-bed general hospital in famed Chicago Medical Center; affiliated with University of Illinois, Chicago Medical School, Loyola University, Institute for Juvenile Research, Chicago State Hospital; very large active outpatient clinic and day center; program is characterized by orientation to the individual resident and high competency of teaching staff. Write: Louis Halperin, M.D., Veterans Administration West Side Hospital, 820 South Damen Avenue, Chicago 12, Illinois.

ANESTHESIOLOGY RESIDENCIES—Fully approved 320-bed hospital associated with well-known diagnostic clinic; thorough training in all phases of anesthesiology combined with active daily teaching and research program; beginning annual stipend $2940 with partial maintenance. Write: Director of Medical Education, Robert Packer Hospital, Sayre, Pennsylvania.

INTERNAL MEDICINE—Approved residencies: enlarging program; vacancies now and for June 1962—all three years; modern Medical Center for 165,000 members; 75 full-time specialists, 8 medical residents, 20 interns; $315-$415 monthly; California license eligibility required. Charles Herbert, M.D., Kaiser Foundation Hospital, San Francisco, California.

PATHOLOGY RESIDENCIES—Approved for 4 years of clinical and anatomic pathology in busy 320-bed hospital associated with well-known diagnostic clinic; thorough training in all phases of pathology combined with active daily teaching and research program; annual stipend range from $2940 to $4620 with partial maintenance. Write: Director of Medical Education, Robert Packer Hospital, Sayre, Pennsylvania.

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1. The Composition of Milks, Publication 254, National Academy of Sciences and National Research Council, Revised 1953. 2. Brown, G. W.; Tuholski, J. M.; Sauer, L. W.; Minsk[illegible], D., and Rees[illegible], M. J. Pediat. *56*:391 (Mar.) 1960.

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